

EIGHTEENTH ANNUAL REPORT

BEAR RIVER
COMMISSION

1975



For the Report Year October 1, 1974 to
September 30, 1975

LOGAN, UTAH

April 1, 1976

BEAR RIVER COMMISSION

22 EAST CENTER

LOGAN, UTAH

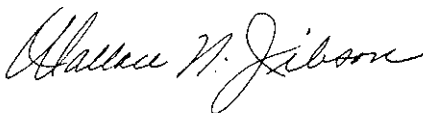
April 1, 1976

Mr. President:

Submitted herewith is the Eighteenth Annual Report of the Bear River Commission, as required by Article III D 2 of the Bear River Compact.

A copy of the report is being transmitted to the Governor of each signatory State to the Bear River Compact.

Very truly yours,

A handwritten signature in cursive script, reading "Wallace N. Jibson".

Wallace N. Jibson
Assistant Secretary

The President
The White House
Washington, D.C.

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EIGHTEENTH ANNUAL REPORT

of the

BEAR RIVER COMMISSION

April 1, 1976

INTRODUCTION

The Bear River Compact determines the rights and obligations of the signatory States of Wyoming, Idaho, and Utah with respect to the waters of Bear River. Federal consent to the Compact was given by the Congress and signed by the President, March 17, 1958. The Bear River Commission was organized as an interstate agency to administer the Compact.

Article III D 2 of the Compact provides that the Bear River Commission shall compile annually a report covering the work of the Commission for the water year ending the previous September 30 and transmit it to the President of the United States and to the Governors of the signatory States on or before April 1 of each year.

Activities of the Bear River Commission during the water year ending September 30, 1975 are summarized in this report. Financial report of the auditors and daily streamflow records are shown in the appendixes.

ORGANIZATION

Ten commissioners, three representing each State and one the United States, constitute the Bear River Commission. The Federal representative serves as Chairman without vote.

George L. Christopulos, newly appointed State Engineer for Wyoming, replaced Floyd Bishop on the Commission. Floyd resigned as State Engineer to enter private practice but will continue to serve the Bear River Commission as Technical Adviser to Wyoming. George Christopulos has served for many years as Wyoming Deputy State Engineer.

S. Paul Holmgren, Utah delegate, was elected in Annual Meeting to serve a first term as Vice-Chairman of the Commission. Other officers of the Commission continued in their respective positions.

OFFICERS

ChairmanE. O. Larson, Salt Lake City, Utah
Vice-Chairman.....S. Paul Holmgren, Bear River City, Utah
Secretary-TreasurerDaniel F. Lawrence, Bountiful, Utah
Assistant SecretaryWallace N. Jibson, Logan, Utah

MEMBERS

Idaho

William G. JenkinsMalad, Idaho
J. C. HedinPreston, Idaho
Clifford J. SkinnerDingle, Idaho
R. Keith Higginson (Ex officio).....Boise, Idaho

Utah

Daniel F. Lawrence.....Bountiful, Utah
Gordon H. PeartRandolph, Utah
S. Paul HolmgrenBear River City, Utah

Wyoming

George L. ChristopulosCheyenne, Wyoming
S. Reed DaytonCokeville, Wyoming
J. W. MyersEvanston, Wyoming

United States

E. O. LarsonSalt Lake City, Utah

Budget Committee

J. W. MyersEvanston, Wyoming
S. Paul HolmgrenBear River City, Utah
William G. JenkinsMalad, Idaho

Operations Committee

S. Reed DaytonCokeville, Wyoming
J. C. HedinPreston, Idaho
Gordon H. PeartRandolph, Utah

MEETINGS

Two meetings were held during the report year in accordance with the bylaws as follows:

Regular Meeting—November 25, 1974.....Salt Lake City, Utah
 Annual Meeting—April 28, 1975.....Salt Lake City, Utah

BUDGET AND FISCAL DISBURSEMENTS

Adopted Budget

	Fiscal Year Ending 6-30-1975	Fiscal Year Ending 6-30-1976	Fiscal Biennium Ending 6-30-1976
Compact Administration			
Personal Services	\$ 6,923	\$ 6,677	\$ 13,600
Travel and Subsistence	64	260	324
General Office Expense	200	225	425
Fiscal and Administrative	371	371	742
Washington Office Tech. Charge.....	742	742	1,484
Printing and Reproduction.....	600	650	1,250
Treasurer (Bond and Audit)	300	300	600
Transcribing Minutes	100	100	200
Legal Retainer Fee	300	300	600
Sub-Total	\$ 9,600	\$ 9,625	\$ 19,225
 Stream-Gaging Program			
U.S. Geological Survey	\$77,776*	\$72,000*	\$149,776
Total	\$87,376*	\$81,625*	\$169,001

*As revised.

Allocation of Budget

U.S. Geological Survey.....	\$39,376	\$36,000	\$ 75,376
State of Idaho	16,000	15,209	31,209
State of Utah	16,000	15,208	31,208
State of Wyoming	16,000	15,208	31,208
Total	\$87,376	\$81,625	\$169,001

All disbursements of Commission funds are made by check on vouchers signed by the Secretary-Treasurer, and approved and countersigned by the Chairman or Vice-Chairman.

The audit of accounts and records, including balance sheet of June 30, 1975 and statement of budget revenue and appropriation accounts for the fiscal year ended June 30, 1975, is included in this report as Appendix A.

STREAM-GAGING PROGRAM

A cooperative, basin-wide program of stream gaging is administered by the Geological Survey project engineer at Logan, Utah. The Geological Survey and Bear River Commission contribute equally to finance the collection of daily streamflow records at about 50 gaging stations. An additional eight gaging stations in the basin are operated by Utah Power & Light Company in connection with Federal Power Commission projects. Streamflow records of significance to the Commission are published herein as appendix B.

A gaging station was discontinued as of September 30, 1975 on Woodruff Creek near Woodruff, Utah. Records available at this site (1937-43, 1949-75) are concurrent for the past five years with those being collected a short distance below Woodruff Creek Dam located 3.6 miles above the discontinued station.

ADMINISTRATION OF BEAR RIVER COMPACT

Provisions of the Compact are administered and enforced by direction of Bear River Commission. However, water rights within each State are adjudicated and administered in accordance with State law subject to limitations provided in the Compact.

Cooperative stream-gaging agreements with the Geological Survey include a program of administrative and technical assistance to the Commission financed without matching Federal funds. This program is directed by the Geological Survey project engineer at Logan where the project office is also the principal office of the Commission.

The project engineer is Assistant Secretary to the Commission with responsibility of providing technical assistance and current streamflow information required to administer the Compact. He establishes operational procedures, conducts hydrologic studies, compiles annual reports, and maintains the records of the Commission.

Seasonal daily records were collected on about 130 diversions above Bear Lake by district water commissioners under the general supervision of the Geological Survey. These records include all of the diversions from Bear River main stem and Smiths Fork, as they are required to administer the Bear River Compact. Daily discharge records for canals in the Central Division have been published in all annual reports. Records for the Upper Division, beginning in 1971, are now being published. (See frontispiece map for division boundaries and tables 1-10 for the daily records.)

Expenses incurred by the Bear River Commission are paid equally by the signatory States. Compensation and expenses of the Federal representative, each commissioner, and each adviser are paid by the Government which he represents.

WATER SUPPLY

Water supply again this year exceeded the long-time average in all parts of the basin. A delay in snowmelt of several weeks resulted in July runoff from the Uintas of more than three times the average for this month.

The bar charts on the opposite page (figure 1) illustrate a comparison of monthly and yearly streamflow in 1975 with a longtime average. Mean flow in cubic feet per second is shown at three gaging stations representing the Upper, Central, and Lower Divisions of the basin. Streamflow at the two upper stations is the major supply for the Upper and Central Divisions so is shown also on daily hydrographs in figures 2 and 3. Seasonal and water-year discharge at these stations is summarized in acre-feet in the following table:

Discharge in Acre-feet — May - September

	Average 1943-75	1974	1975
Upper Bear River	117,600	128,700	153,100
Smiths Fork	111,200	130,600	130,400
Logan River	125,200	165,200	165,800

Water Year

	Average 1943-75	1974	1975
Upper Bear River	140,400	157,700	171,400
Smiths Fork	143,800	165,300	158,100
Logan River	186,200	226,300	219,600

Diversion from Bear River to Bear Lake (for storage or bypass) was 383,000 acre-feet in 1975 or 52 percent above the 52-year average. Outflow, including bypassed water, was only 289,000 acre-feet with a resulting net gain in lake content of 111,000 acre-feet.

The bar charts in figure 4, page 16, illustrate the hydrology of Bear Lake in 1975 compared to the 1924-75 average inflow, outflow, and gain. Gain from tributaries, as shown, represents the effect of peripheral tributary and ground-water inflow exclusive of Bear River water. Thus, under natural conditions without Bear River, the Lake in 1975 would have gained 17,000 acre-feet over its evaporation and other losses compared to an average gain of 11,900 acre-feet. Water-year hydrographs of 1974 and 1975 surface elevations are shown in figure 5, page 17.

Bear Lake Elevation (U.P. & L. Datum)

Water Year	Beginning of Water Year	End of Storage Period	End of Water Year
1974	5,919.84	5,922.05	5,919.16
1975	5,919.16	5,922.64	5,920.74

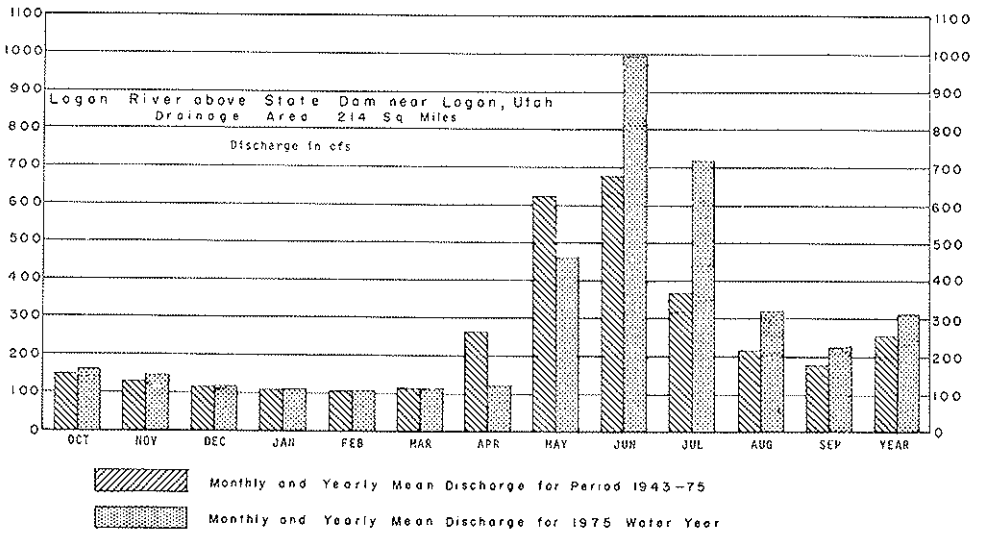
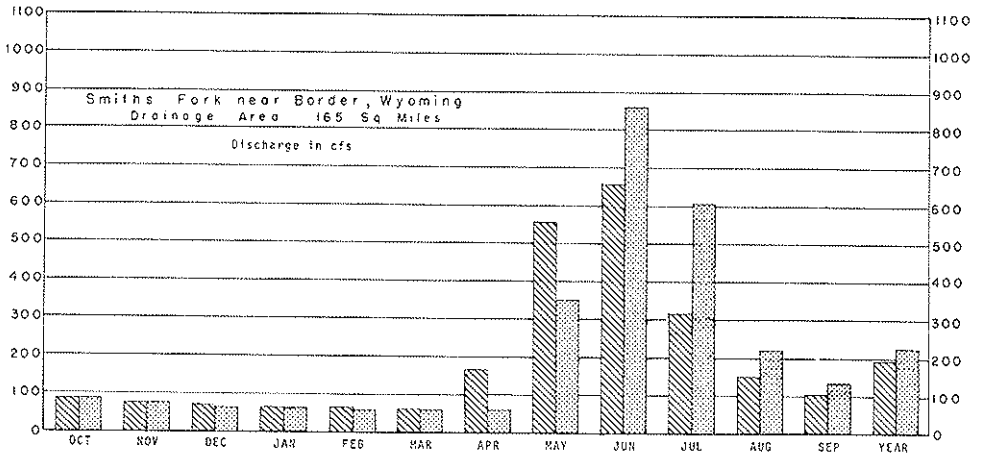
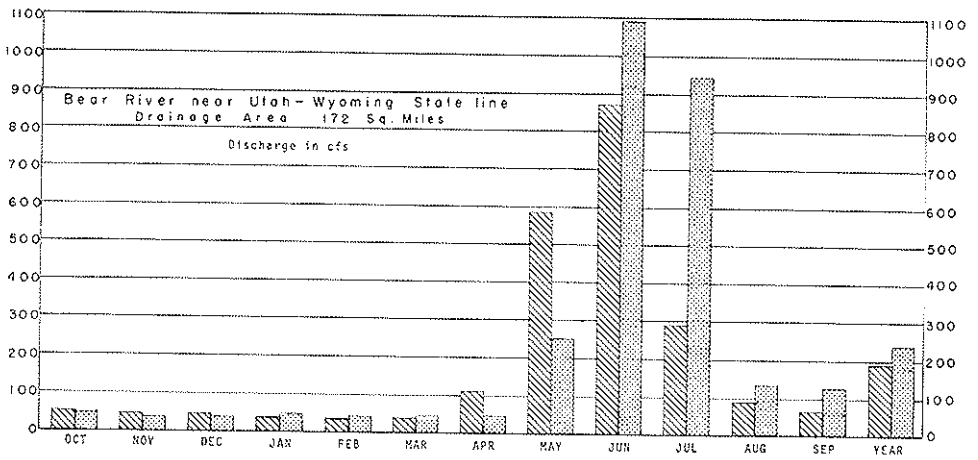
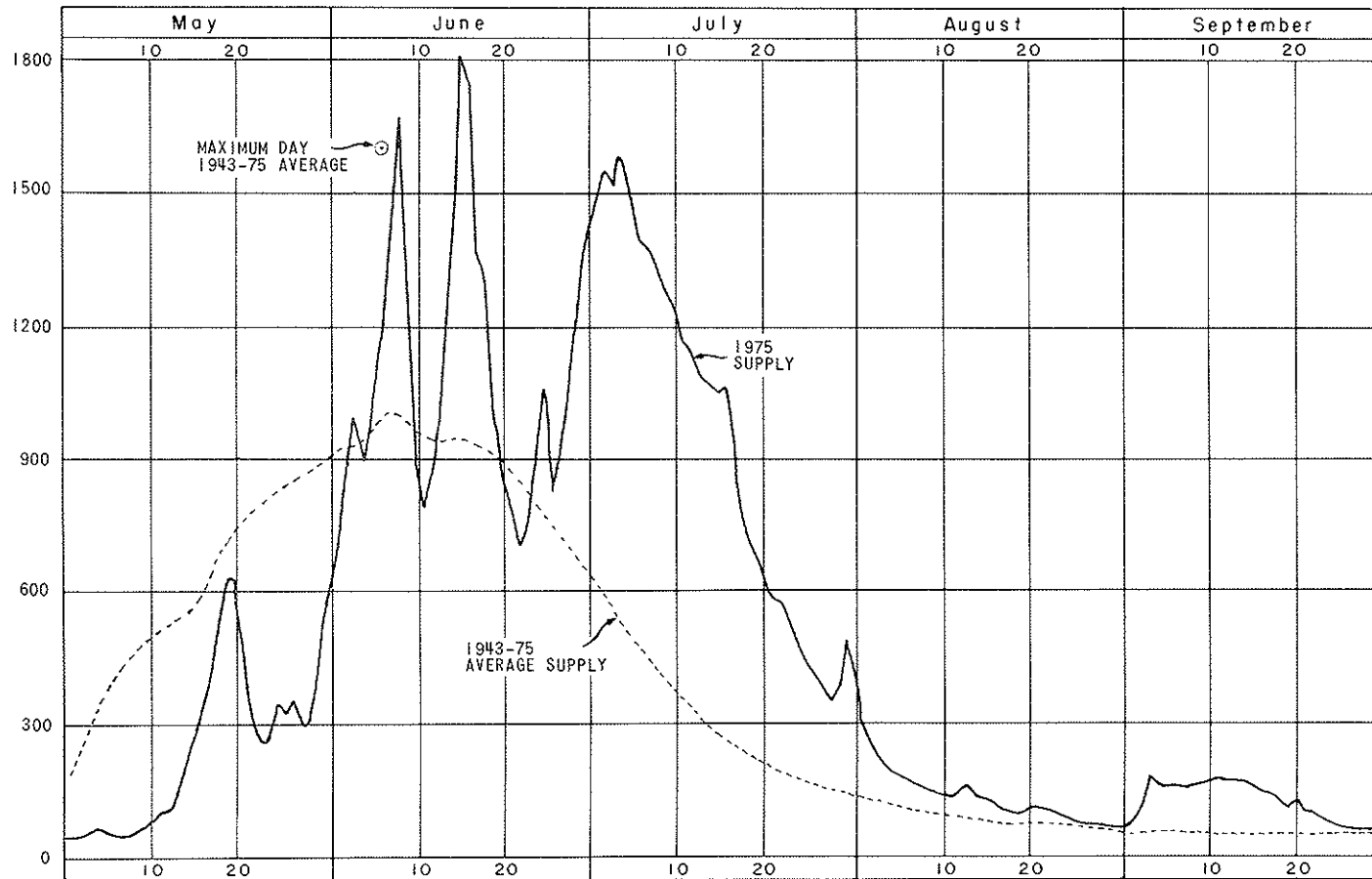


Figure 1. Comparison of discharge at three representative gaging stations in 1975 with average discharge for period 1943-75

UPPER DIVISION - BEAR RIVER SUPPLY *

CUBIC FEET PER SECOND

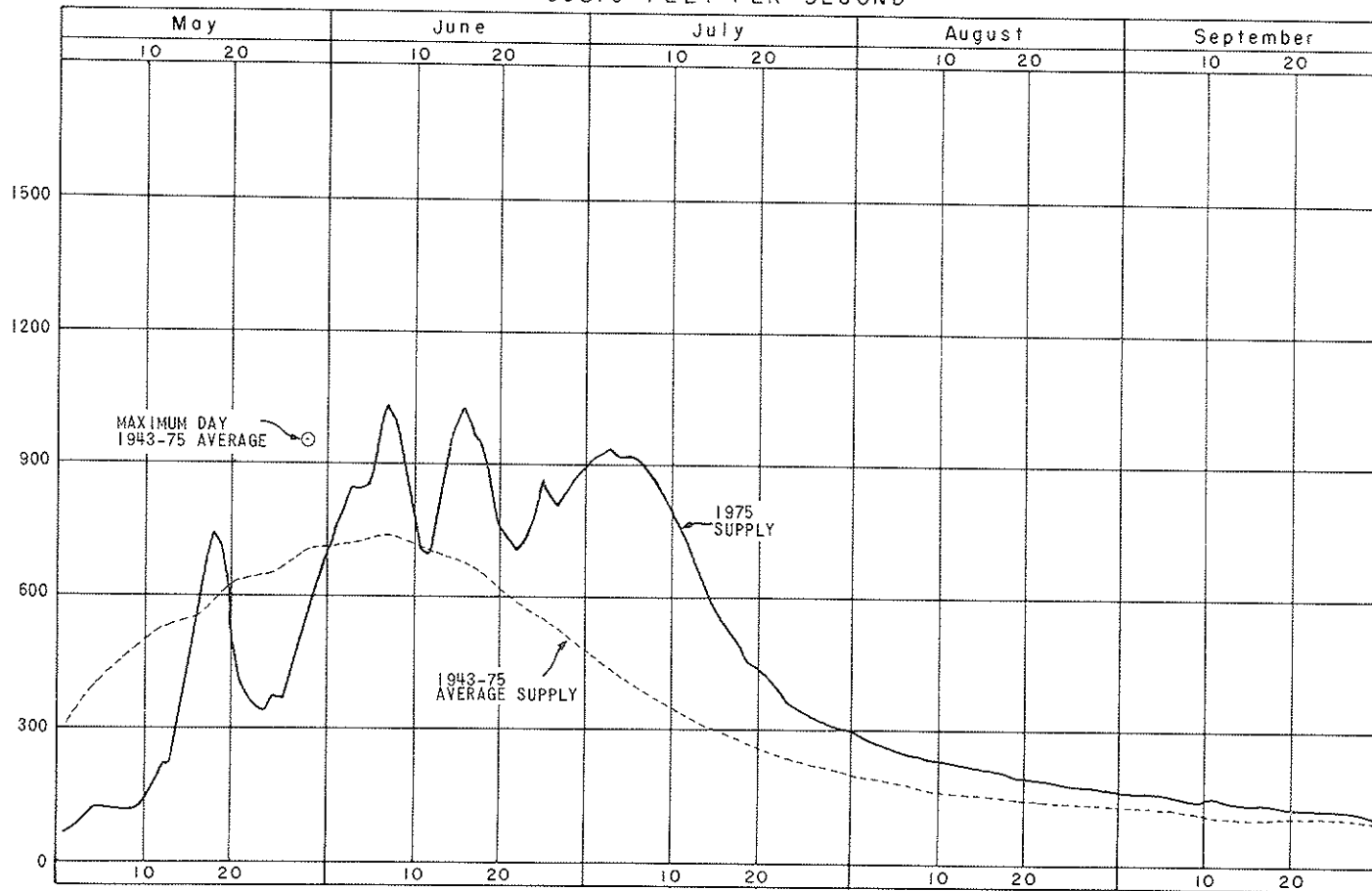


*Bear River near Utah-Wyoming State line

Figure 2

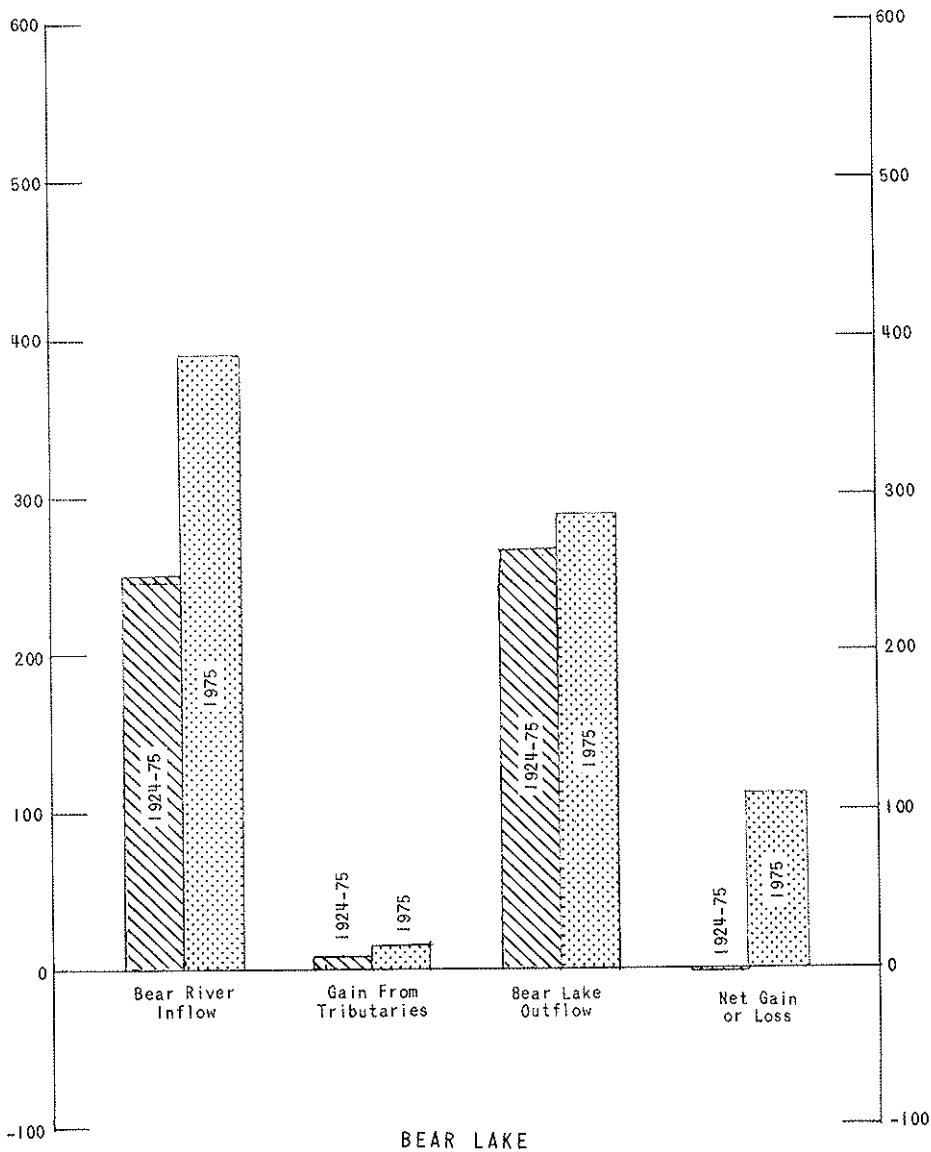
CENTRAL DIVISION - SMITHS FORK SUPPLY *

CUBIC FEET PER SECOND



*Smiths Fork near Border, Wyoming

Figure 3



ANNUAL QUANTITIES, IN THOUSANDS OF ACRE-FEET

Figure 4

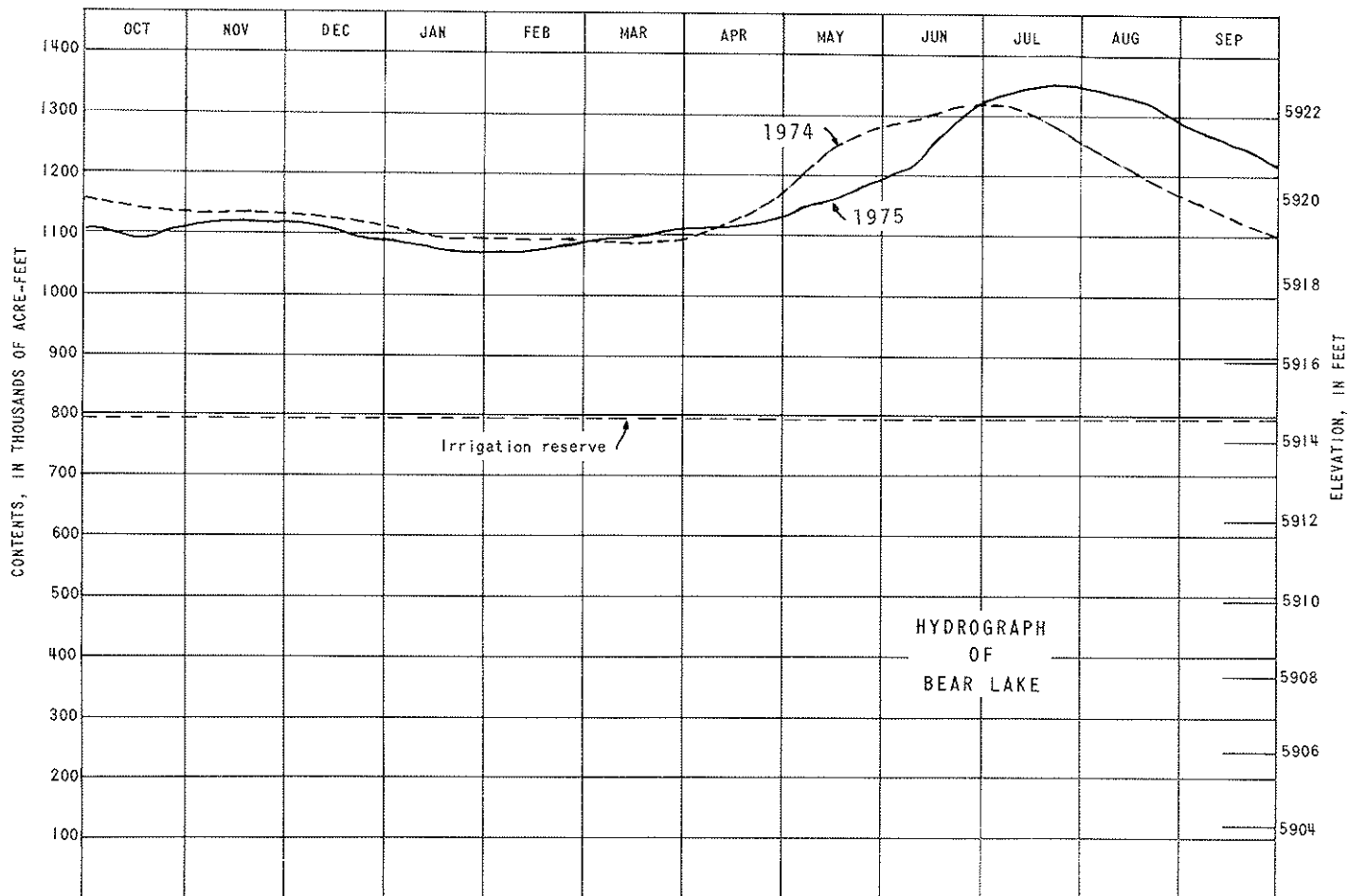


Figure 5

STREAMFLOW DISTRIBUTION

Records of diversions from Bear River main stem above Bear Lake and from Smiths Fork were collected by district water commissioners and submitted weekly to the Assistant Secretary. He computed section diversions and allocations and informed these district commissioners and members of the Commission of the quantities diverted and of State-section allocations, where applicable, for the regulatory action needed to comply with the Compact.

Upper Division

The Upper Division comprises that part of the basin above and including Pixley Dam and includes two sections in Wyoming and two in Utah. The Compact provides that when the total diversions in the division plus the flow passing Pixley Dam are less than 1,250 cfs (divertible flow), a water emergency exists and such divertible flow is allocated to sections as follows:

Upper Utah Section Diversions	0.6 percent
Upper Wyoming Section Diversions	49.3 percent
Lower Utah Section Diversions	40.5 percent
Lower Wyoming Section Diversions	9.6 percent

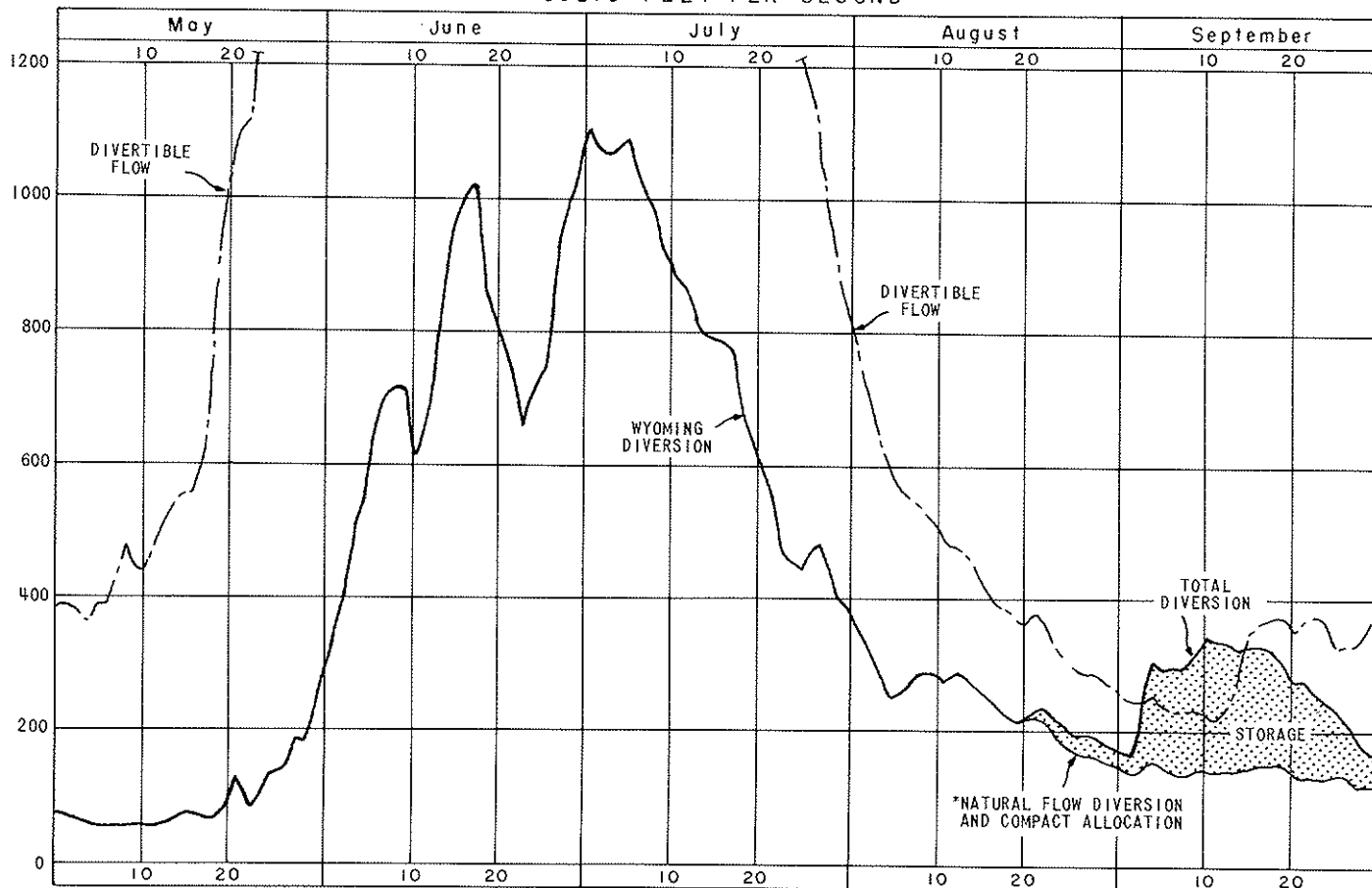
Interstate regulation in years of average or better water supply usually is not required in this division where meadow hay predominates. Article IV of the Compact makes available to other sections the unused allocation in any section. Thus, under present practice, after about July 10 Upper Wyoming Section allocation is increased by 9.6 percent as the Lower Wyoming Section ceases diverting and shortly thereafter is increased by most of Lower Utah's allocation as this section shuts down for haying operations. Except for the first few days in May, divertible flow in these years of good supply does not drop to the 1,250 cfs emergency condition until near mid-July when the two lower sections have ceased diverting for harvesting. Thereafter, Upper Wyoming Section could not conceivably divert in excess of allocation.

Diversion tabulations for the Upper Division, shown on pages 28-32, indicate that divertible natural flow was below 1,250 cfs prior to May 24 and subsequent to July 24 through the balance of the season. Diversions were minimal during most of the first period, and in the second period Upper Wyoming Section diverted less than its basic allocation of 49.3 percent until August 8. Other sections in the division had virtually ceased diverting prior to August 8, so by Article IV, most of the divertible flow would then be allocated to Upper Wyoming Section. Hydrographs in figures 6-8 (pages 19-21) show water diverted from natural flow and storage in the three principal sections in this division.

Diversion included about 4,300 acre-feet storage from Woodruff Narrows Reservoir (figure 9), about 4,000 acre-feet from Sulphur Creek Reservoir, and 4,200 acre-feet from Whitney Reservoir.

UPPER DIVISION - UPPER WYOMING SECTION

CUBIC FEET PER SECOND

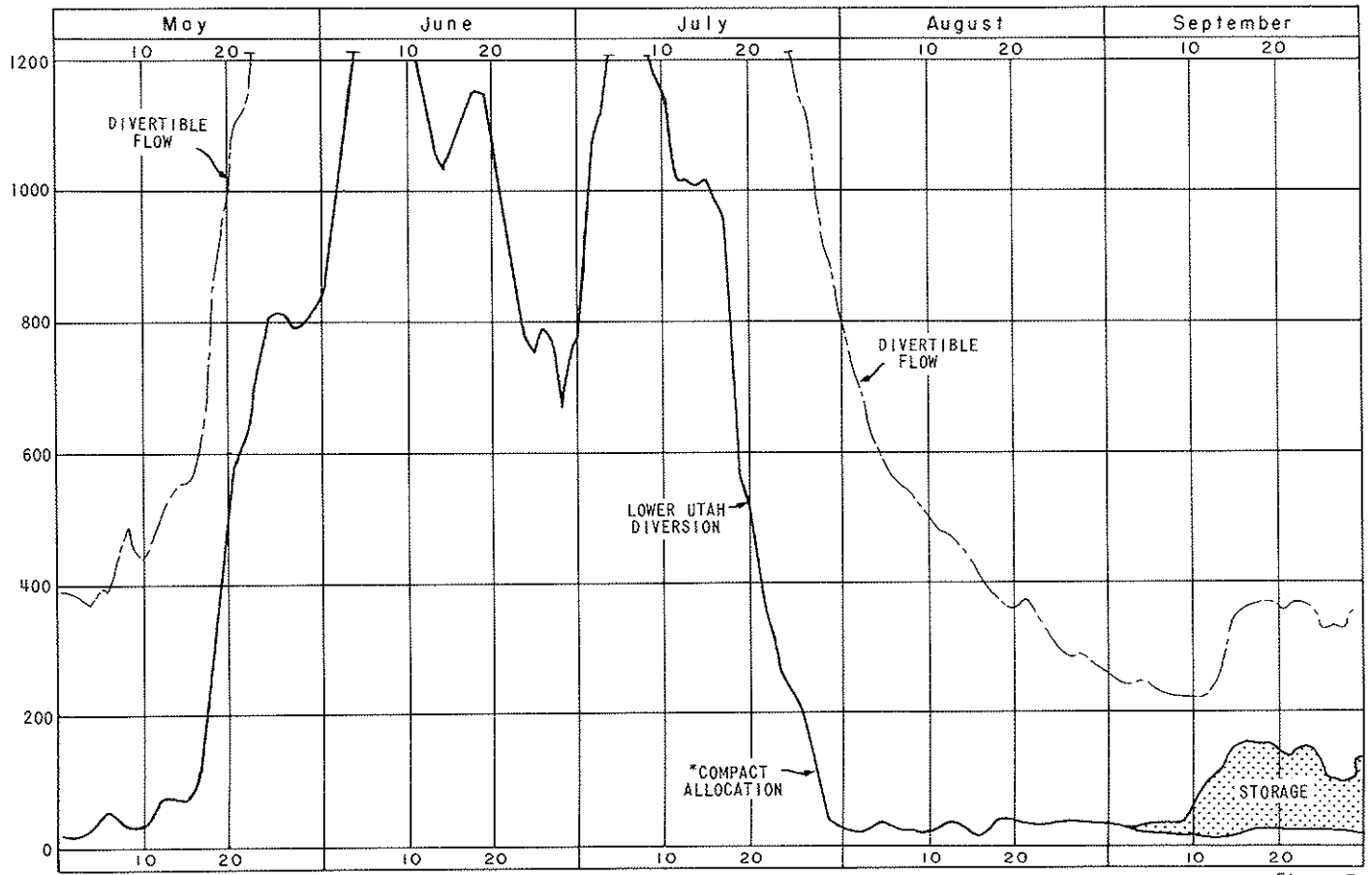


*See footnote, Tables 3-5

Figure 6

UPPER DIVISION - LOWER UTAH SECTION

CUBIC FEET PER SECOND



*See footnote, Tables 3-5

Figure 7

20

UPPER DIVISION - LOWER WYOMING SECTION

CUBIC FEET PER SECOND

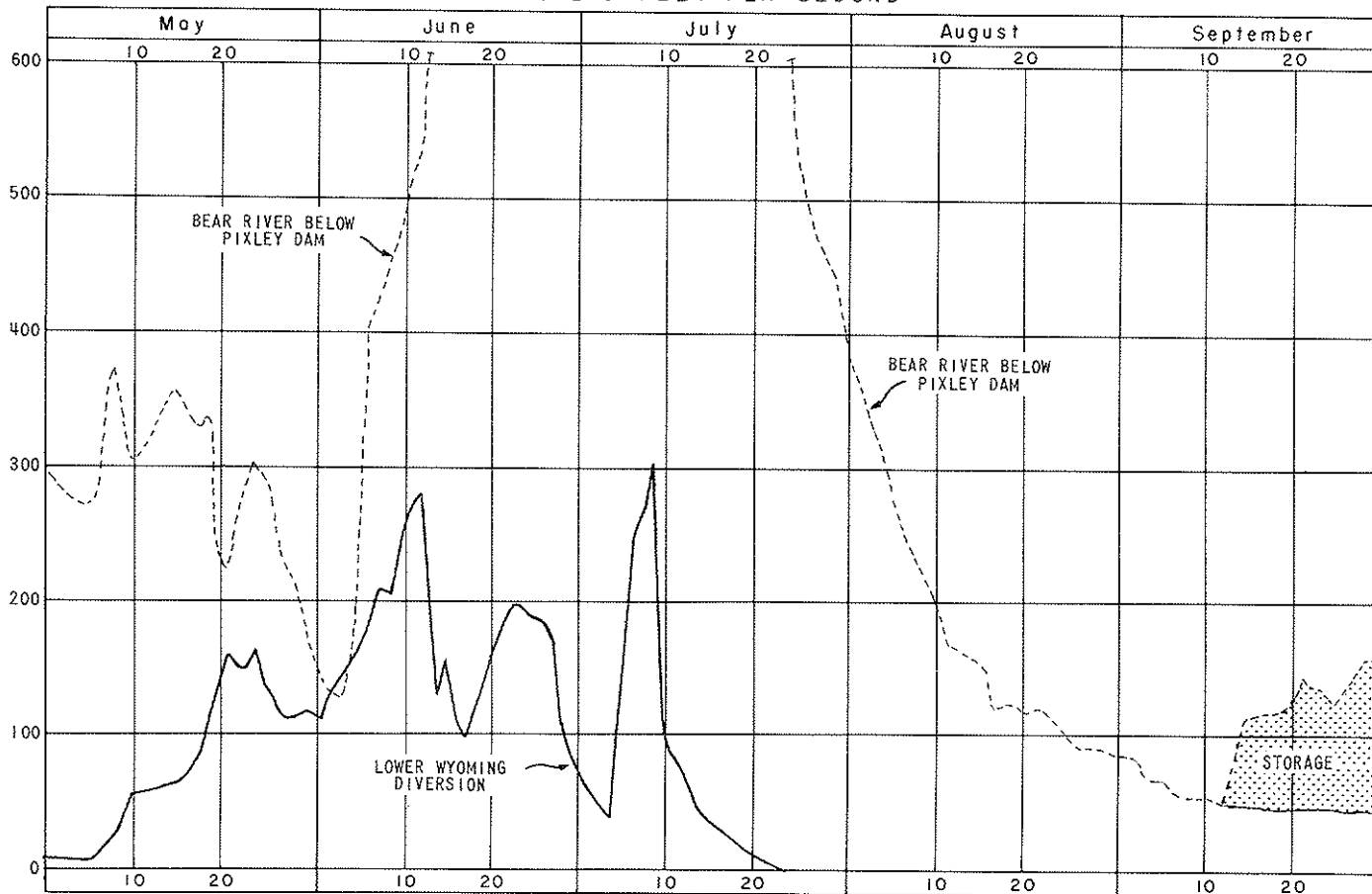


Figure 8

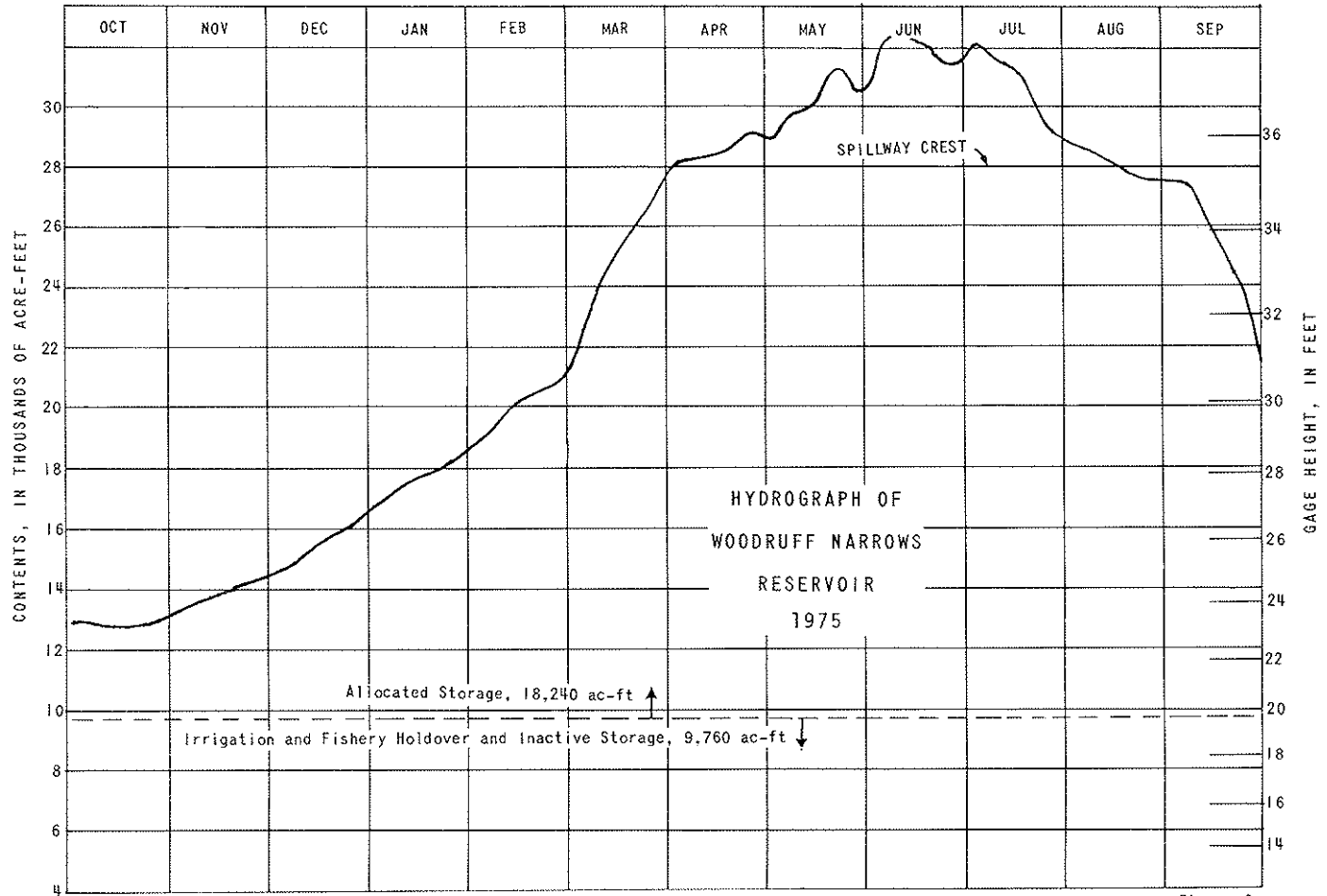


Figure 9

Central Division

The Central Division comprises that part of the basin from Pixley Dam down to and including Stewart Dam (the point of diversion to Bear Lake). It includes a section in Wyoming and one in Idaho.

Divertible flow in the Central Division is the sum of diversions from Smiths Fork and designated tributaries, diversions from Bear River in the division, and flow passing Stewart Dam. A water emergency shall exist when this divertible flow is less than 870 cfs, or when Bear River entering Idaho (gaging station at Border) is discharging less than 350 cfs. Wyoming diversions are limited to 43 percent of the divertible flow during a water emergency.

Diversion and allocation hydrographs are shown for the two sections in the Central Division in figures 10 and 11 (pages 26 and 27), and corresponding data showing individual canals are included in tables 6 to 10 (pages 33-37). A water emergency, as defined above, became effective August 8 when divertible flow dropped below 870 cfs and on August 16, the flow entering Idaho dropped below 350 cfs. Wyoming diversion was less than compact allocation for the balance of the season (see figure 10).

The usual diversion pattern is shown in figure 11 for Idaho where the Idaho diversion, as plotted, does not include Rainbow Inlet Canal and accordingly is far less than the compact allocation.

Effectiveness of interstate regulation in the dry years of 1961 and 1966 is indicated in the following table by the small spread in diversion rate per acre in the two sections. In good years with less restriction, the Wyoming rate is much higher and reflects the greater requirement of gravelly soils.

Diversion in acre-feet per acre — May - September

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Wy.	2.16	5.82	5.06	4.48	4.96	3.32	4.78	4.02	4.24	4.25	4.39	4.74	4.24	5.68	4.39
Id.	1.72	3.26	3.28	2.91	2.87	2.95	3.05	3.39	3.48	3.50	3.33	3.35	3.09	3.81	3.43

Lower Division

Authority is given the Commission upon its own motion to declare a water emergency in any division, and in the Lower Division such a declaration may be made also upon petition of an aggrieved Utah user against an Idaho user. Upon declaration of an emergency, the Commission is required to enforce water-delivery schedules based on priority of rights without regard to State lines.

No petitions were filed with the Commission or water emergencies declared in the Lower Division in 1975.

Interstate Tributaries

An aggrieved user on an interstate tributary may petition for declaration of water emergency and distribution of flow under direction of the Commission. Interstate arbitration on tributaries was not requested in 1975.

STORAGE

New Storage

The Compact defines storage rights in existing reservoirs above Bear Lake and provides for an additional storage allowance of 36,500 acre-feet annually. Idaho users on Thomas Fork are allotted 1,000 acre-feet of this amount and the remainder is divided equally between Wyoming and Utah.

The reservoirs shown below have been constructed under additional storage provisions of the Compact and all were filled to capacity in 1975. A total allocation to Woodruff Narrows Reservoir for storage of 18,240 acre-feet includes 15,240 acre-feet from Utah and 3,000 acre-feet from Wyoming.

<i>Reservoir</i>	<i>Allocation</i>
Sulphur Creek Reservoir (Wyoming).....	4,614 ac-ft
Sulphur Creek Reservoir Enlargement (Wyoming).....	1,100 ac-ft
J. L. Martin Reservoir, Sulphur Creek (Wyoming)	88 ac-ft
A. J. Barker Reservoir, Yellow Creek (Utah)	162 ac-ft
Hatch Brothers Reservoir (Utah)	350 ac-ft
Woodruff Narrows Reservoir (Utah-Wyoming)	18,240 ac-ft
Whitney Reservoir (Wyoming)	4,200 ac-ft
Wyman Reservoir (Wyoming).....	22 ac-ft
Massae Reservoir (Wyoming)	107 ac-ft
Woodruff Creek Reservoir (Utah)	2,000 ac-ft
Total Allocation	30,883 ac-ft

Bear Lake

Article V of the Compact provides an irrigation reserve level in Bear Lake below which water shall not be released solely for generation of power, except in emergency, but after release for irrigation it may be used in generating power as it is conveyed to irrigation diversion works. The reserve is to be increased by designated amounts as additional storage, under terms of the Compact, is developed above Bear Lake. No development of new storage took place in 1975, so the irrigation reserve elevation remained at 5,914.61 feet with active storage content in the reserve of 794,900 acre-feet. (See figure 5.) This reserve corresponds to 30,000 acre-feet of additional storage allocation.

Bear Lake reached an annual maximum elevation of 5,922.64 feet (usable content, 1,350,000 acre-feet) on July 25, much later than usual. Subsequent irrigation demand was only about 133,000 acre-feet, considerably less than usual because of the late season.

APPLICATIONS FOR APPROPRIATION

Article X of the Compact states, "Applications for appropriation, for change of point of diversion, place and nature of use, and for exchange of Bear River water shall be considered and acted upon in accordance with the law of the State in which the point of diversion is located, but no such application shall be approved if the effect thereof will be to deprive any water user in another State of water to which he is entitled. The official of each State in charge of water administration shall, upon the filing of an application affecting Bear River water, transmit a copy thereof to the Commission."

Summary information from applications has been presented to the Commission each meeting; however, followup information on final disposition of applications and cumulative totals have been lacking. The Commission has requested from each State a periodic cumulative summary to give an indication of new usage since the Compacts inception in 1958. The following summary, though incomplete, includes appropriations having 1958 and later priorities:

Adjudicated (Licensed, etc.)	Wyoming	Utah	Idaho
Surface Water	2 cfs	143 cfs	29 cfs
Ground Water	unknown	179 cfs	138 cfs
Approved for adjudication			
Surface Water	53 cfs	243 cfs	101 cfs
Ground Water	73 cfs	161 cfs	271 cfs
Storage (1)			
Adjudicated		1,370 af	2,470 af
Approved		8,072 af	50,080 af

(1) Excludes Compact Storage rights

REVIEW OF COMPACT PROVISIONS

Article XIII, Bear River Compact, requires that the Commission review provisions of the Compact at intervals not exceeding twenty years and may propose amendments to any such provision for consideration of the legislatures of the signatory States. Wyoming commissioners have urged such a review with particular emphasis on their recommendations for an increase in storage allocation to the basin above Bear Lake. Discussion on the subject has continued in the 1975 meetings of the Commission.

A proposal to develop additional storage at Woodruff Narrows to be supplied in part by a transfer to storage of direct-flow irrigation rights when not being diverted for irrigation has been suggested by upper basin users. Idaho has objected to such a transfer on the grounds that it is in violation of storage provisions in the Compact. Action on the application to transfer these rights has not been taken by the Utah State Engineer.

CENTRAL DIVISION - WYOMING SECTION

CUBIC FEET PER SECOND

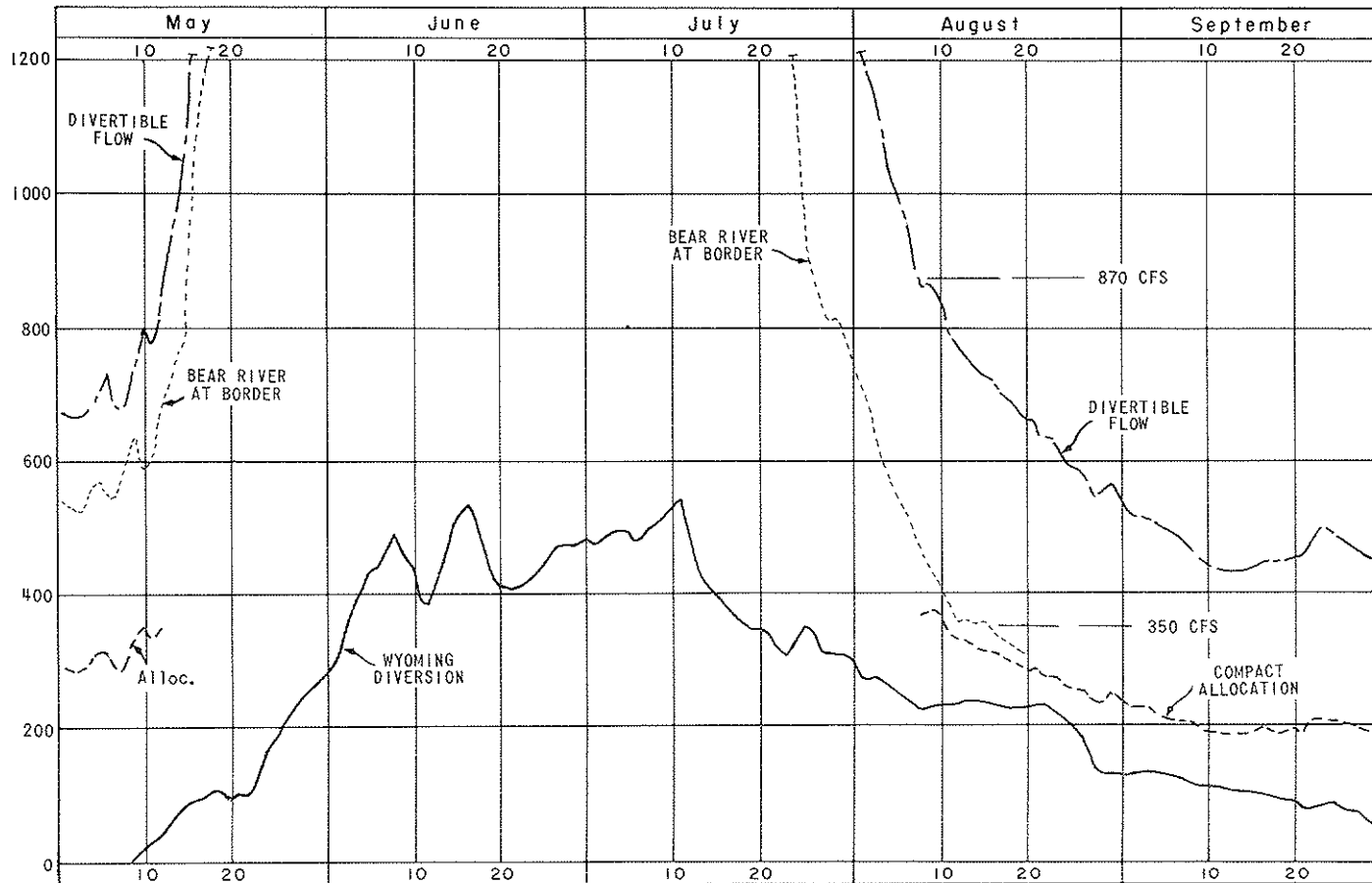


Figure 10

CENTRAL DIVISION - IDAHO SECTION

CUBIC FEET PER SECOND

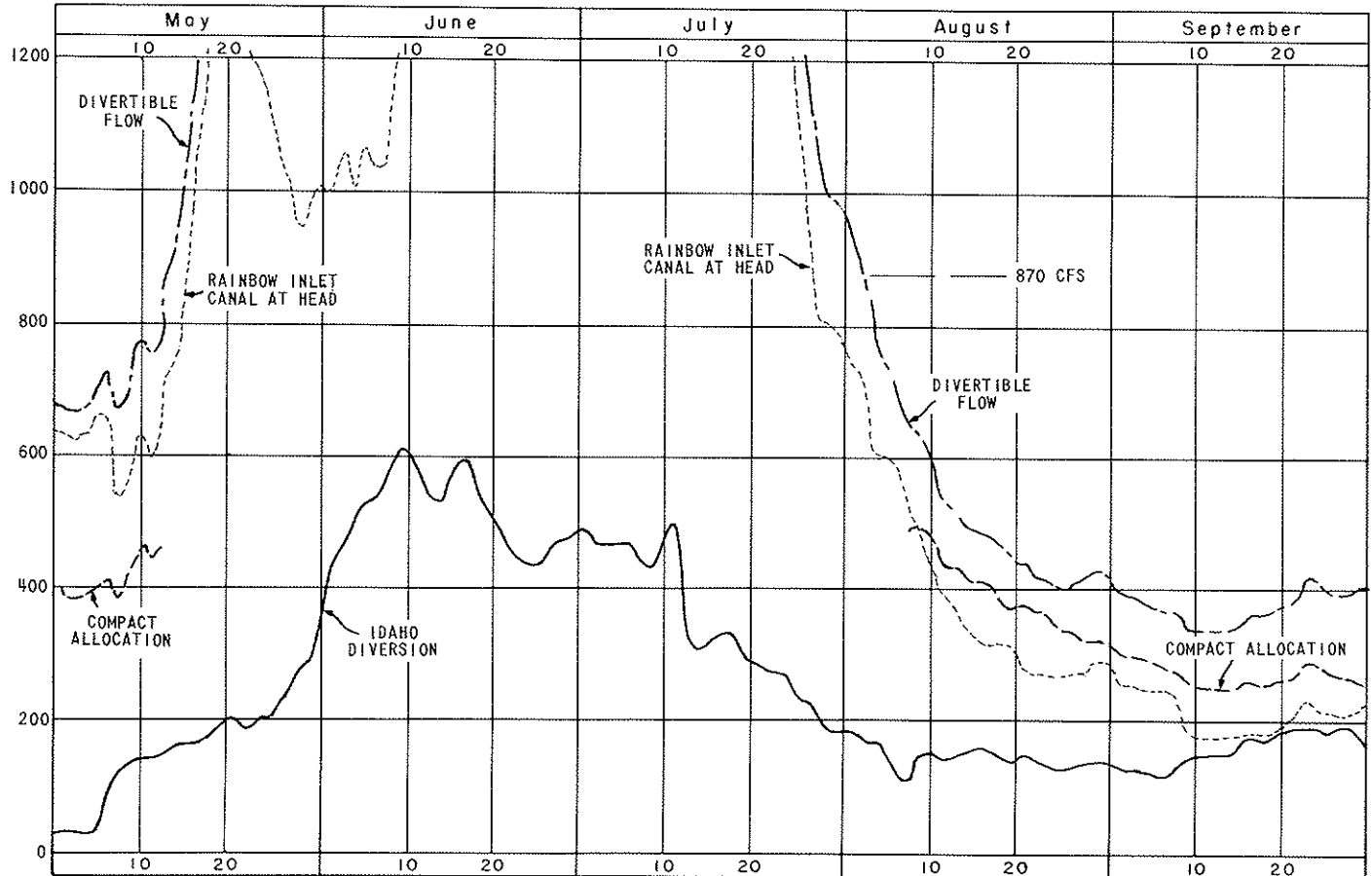


Figure 11

**DAILY DISCHARGE IN CFS OF SMITHS FORK AND BEAR RIVER CANALS
WITH COMPACT ALLOCATION IN CENTRAL DIVISION**

JUNE 1975	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
WYOMING DIVERSIONS																																
BEAR RIVER CANALS																																
Garrett	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Myran East	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Myran West	41	41	40	39	38	36	38	42	43	42	43	42	43	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Snyder	20	21	21	21	21	22	22	22	28	33	32	31	32	37	40	40	41	35	32	29	28	27	28	28	23	24	27	26	24	23	20	
Rocky Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cook	0	29	46	60	74	76	82	89	89	89	95	30	34	47	50	58	64	65	60	55	52	52	52	51	53	49	47	46	47	46		
J. R. Richards	0	0	0	0	0	0	0	0	0	0	0	0	0	8	18	22	22	24	26	26	25	21	21	21	22	23	25	24	23	22	18	13
TRIBUTARY CANALS																																
Goodell Co. - Pine Cr.	12	12	12	11	11	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
V. H. Canal - Pine Cr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Collett Canal - Pine Cr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grade Creek Canal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diamond C&P #1-Bruner	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Haggerty West-Bruner	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sublette C&T Thompson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SMITHS FORK CANAL																																
Quinn-Bourne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Button Flat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Progress	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Emelle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cooper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Whelock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Covey Canal at Head	60	55	63	65	78	75	77	80	83	86	75	74	80	86	113	100	98	93	91	104	107	103	110	111	117	117	114	116	116	118	118	
Covey Canal-Bruner Cr.	8	9	8	8	7	7	6	6	5	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Covey Canal-Springs Cr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tanner, Hunt & Garrett	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Whites Water	15	17	16	40	40	40	40	39	38	24	29	28	28	30	33	37	35	35	32	28	27	27	27	26	27	27	24	23	23	25	25	
John Bourne-Collett Cr.	8	8	8	8	8	8	10	11	12	14	15	16	18	19	20	18	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
Ferguson (Collett Cr.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stoner-Nichols (So. Br.)	0	10	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
Morgan (South Branch)	2	2	2	2	3	4	5	6	8	9	10	10	9	9	9	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	
Cokoville Water-So Br.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Tanner 1 (South Br.)	9	8	7	6	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Smiths Fk Canal-So Br.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
South Br 2-Smiths Fork	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
South Br 1-Smiths Fork	46	46	48	53	60	62	70	61	23	27	34	36	38	45	55	55	56	62	62	51	34	0	0	0	0	0	0	0	0	0	0	
Iso Star Ditch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL WYO. DIVERSIONS	297	317	376	403	433	436	466	497	456	440	395	386	425	461	515	534	526	497	456	413	412	407	415	419	434	455	472	471	465	481		
IDAHO DIVERSIONS																																
Miller Ditch	15	16	16	16	16	10	0	0	0	0	0	0	0	0	0	12	18	16	15	15	15	15	15	15	15	15	15	15	15	14	14	
Nuffer Canal	23	24	24	25	24	24	25	26	28	29	24	22	21	21	24	26	26	24	26	22	16	9	0	0	0	0	0	0	0	0	0	
Sorenson Ditch	16	17	18	20	20	20	21	23	24	26	26	26	26	26	26	26	28	28	30	30	30	30	30	30	30	30	30	30	30	30	30	
Jensen Ditch	10	28	27	16	16	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Loyd Ditch	2	2	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Dingle Irrig. Canal	0	0	12	44	52	64	70	79	84	80	89	63	62	63	65	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
Rean Crockett Canal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Black Ditch Canal	173	174	175	176	177	176	176	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	177	
Preston Montpelier Ca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tarboro Kent Canal	11	11	11	14	20	21	163	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
West Fork Canal	138	138	140	140	142	144	145	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	
Pugevie Ditch	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
TOTAL IDAHO DIVERSIONS	222	451	467	508	530	538	542	573	605	610	584	559	538	535	561	591	601	562	526	513	487	460	444	441	438	440	462	477	478	489		
Rainbow Inlet Co-Bear R.	1000	1930	1060	1000	1070	1850	1040	1160	1310	1470	1550	1540	1500	1450	1560	1710	1780	1940	2100	2160	2270	2220	2130	2100	2150	2140	2110	2110	2090	2070	2070	
Bear R Bl Stewart Dam	8	8	8	7	7	8	9	10	9	10	9	10	10	11	12	12	12	11	11	10	10	10	10	10	10	10	10	10	10	10	10	
Idaho Divertible Flow	1429	1683	1535	1514	1607	1595	1590	1732	1925	2089	2144	2109	2048	1986	2132	2372																

**DAILY DISCHARGE IN CFS OF SMITHS FORK AND BEAR RIVER CANALS
WITH COMPACT ALLOCATION IN CENTRAL DIVISION**

JULY 1975	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
WYOMING DIVERSIONS																																		
BEAR RIVER CANALS																																		
Garrett	0	0	0	4	5	6	7	8	9	9	7	6	5	4	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	
Sights	10	10	11	9	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	138	
Wyman East	32	32	31	31	30	30	28	28	28	30	30	30	30	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	797	
Wyman West	50	50	48	48	45	45	42	42	43	43	43	42	42	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	138		
Snyder	200	199	188	188	181	176	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	955	
Rocky Point	44	43	42	42	40	44	50	50	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	342	
Cook	10	8	6	4	4	3	12	12	14	16	15	16	16	16	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	125
J. R. Richards	10	8	6	4	4	3	12	12	14	16	15	16	16	16	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	313
TRIBUTARY CANALS																																		
Goodell Ca. Pine Cr	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	102	
V. H. Canal - Pine Cr	10	11	11	9	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	374	
Collett Canal - Pine Cr	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	135	
Grade Creek Canal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diamond L&P #1 - Bruner	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Haggerty West - Bruner	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sublette C at Thompson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SMITHS FORK CANALS																																		
Quinn-Bourne	8	8	9	10	11	12	13	15	15	15	16	16	16	17	15	15	15	14	14	14	14	13	12	11	11	11	10	10	9	8	8	8	385	
Button Flat	4	5	5	6	6	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	156	
Progress	16	17	18	17	16	15	15	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	165
Emelle	12	24	29	28	26	26	24	24	25	24	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	567	
Whelock	12	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	260	
Covey Canal at Head	11	11	11	11	11	11	120	120	122	111	118	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119	2785
Covey Canal - Bruner Cr	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	234	
Covey Canal - Spring Cr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	182	
Tanner, Hunt & Garrett	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	833	
Whites Water	16	16	16	16	17	17	17	16	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	786	
John Bourne-Collett Cr	16	16	16	16	17	17	17	16	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	14	13	285	
Forgeon (Collett Cr)	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	285	
Slinger-Nichols (So Br)	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	126	
Morgan (South Branch)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	
Cokeville Water - So Br	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	
Tanner 1 (South Br)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	
Smiths Fr Canal - So Br	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
South Br 2 - Smiths Fork	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	
South Br 1 - Smiths Fork	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	
Igo Star Ditch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL WYO. DIVERSIONS	472	482	490	492	489	476	497	503	513	528	548	488	436	406	393	385	377	360	341	342	341	315	310	327	351	342	314	311	305	315	300	12547		
IDAHO DIVERSIONS																																		
Miller Ditch	14	14	14	14	14	14	13	13	13	14	15	16	16	10	0	0	0	0	0	0	0	0	0	0	0	0	6	7	6	6	6	225		
Nuffer Canal	12	12	22	25	24	24	12	11	23	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	669	
Sorensen Ditch	20	27	25	24	23	22	21	20	19	21	21	22	25	24	24	24	23	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	572	
Jensen Ditch	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	172	
Lloyd Ditch	15	14	13	13	10	9	7	6	5	7	9	11	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	179	
Single Irrig. Canal	30	30	29	28	33	46	25	40	32	46	40	41	38	31	50	62	64	64	62	57	57	57	55	57	60	52	42	40	41	41	39	1402		
Reaz Crockett Canal	62	61	60	59	58	57	57	56	54	56	55	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	1569	
Black Otter Canal	12	11	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	2626	
Reason Mountain-Lor Ca	20	19	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	336	
LeRocco Kant Canal	17	14	14	14	12	12	11	5	2	0	16	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	1510
West Fork Canal	335	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	89	
Pugnitz Ditch	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
TOTAL IDAHO DIVERSIONS	496	485	485	463	464	471	425	437	430	465	501	468	331	308	316	322	333	338	311	289	285	276	272	271	242	223	225	197	181	181	182	10657		
BEAR RIVER CANALS																																		

APPENDIX A

Hatch and Miller

CERTIFIED PUBLIC ACCOUNTANTS
1935 SOUTH MAIN STREET - SUITE 429
SALT LAKE CITY, UTAH 84115
TELEPHONE 801-486-3813

MARK E. HATCH, CPA
GARY L. MILLER, CPA

MEMBER: AMERICAN INSTITUTE OF
CERTIFIED PUBLIC ACCOUNTANTS
UTAH ASSOCIATION OF
CERTIFIED PUBLIC ACCOUNTANTS

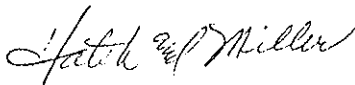
Bear River Commission
Utah State Capitol
Salt Lake City, Utah

Gentlemen:

We have examined the statement of revenue and expenditures of the Bear River Commission for the year ended June 30, 1975.

Our examination was made in accordance with generally accepted auditing standards, and accordingly included tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the accompanying statement of revenue and expenditures present fairly the result of operations of the Bear River Commission for the twelve months ended June 30, 1975, in conformity with generally accepted accounting principles applied on a basis consistent with the prior year.



Certified Public Accountants

August 20, 1975

BEAR RIVER COMMISSION
Statement of Revenue & Expenditures
For the Fiscal Year Ended June 30, 1975

REVENUE:

Assessments: (note 1)		
State of Wyoming		\$14,000.00
State of Idaho		14,000.00
State of Utah		<u>14,000.00</u>
Total assessments		42,000.00
Interest income		<u>2,994.04</u>
Total Revenue		44,994.04

EXPENDITURES:

Commission's portion of direct expenses of the stream gauge program			
Personal Services	\$34,097.50		
Travel and Subsistence	2,253.00		
General Office	3,936.50		
Fiscal and Administration	2,121.00		
Washington Office Charges	<u>4,242.00</u>		
Total		46,650.00	
Administrative Expenses:			
Legal Fee	300.00		
Auditing Fee	250.00		
Transcript of Minutes	100.00		
Annual Report	628.00		
Surety Bond	50.00		
Other	<u>20.00</u>		
Total		<u>1,348.00</u>	<u>47,998.00</u>
Deficiency of Revenues over Expenditures			(3,003.96)
Funds available June 30, 1974			<u>12,336.32</u>
Funds available June 30, 1975			<u>\$ 9,332.36</u>

FUNDS CONSISTS OF:

Cash in bank		\$ 332.36
Savings subject to withdrawal		9,000.00
Total funds June 30, 1975		<u>\$ 9,332.36</u>

See accompanying notes to the financial statements.

BEAR RIVER COMMISSION
 Comparative Statement of Revenue & Expenditures
 For the Fiscal Years Ended June 30, 1975 and 1974

	<u>1975</u>	<u>1974</u>	<u>Increase (Decrease)</u>
REVENUE:			
Assessments:			
State of Wyoming	\$14,000.00	14,000.00	-
State of Idaho	14,000.00	14,000.00	-
State of Utah	14,000.00	14,000.00	-
Total Assessments	<u>42,000.00</u>	<u>42,000.00</u>	<u>-0-</u>
Interest income	<u>2,994.04</u>	<u>1,731.71</u>	<u>1,262.33</u>
Total Revenue	<u>44,994.04</u>	<u>43,731.71</u>	<u>1,262.33</u>
EXPENDITURES:			
Commission's portion of direct expenses of the stream gauge program			
Personal Services	34,097.50	32,208.00	1,889.50
Travel and Subsistence	2,253.00	2,208.00	45.00
General Office	3,936.50	3,563.00	373.50
Fiscal and Administration	2,121.00	1,990.50	130.50
Washington Office Charges	4,242.00	3,980.50	261.50
Total	<u>46,650.00</u>	<u>43,950.00</u>	<u>2,700.00</u>
Administrative Expenses			
Legal Fee	300.00	300.00	-
Auditing Fee	250.00	215.00	35.00
Transcript of Minutes	100.00	100.00	-
Annual Report	628.00	599.75	28.25
Surety Bond	50.00	50.00	-
Other	20.00	48.50	(28.50)
Total	<u>1,348.00</u>	<u>1,313.25</u>	<u>34.75</u>
Total Expenditures	<u>47,998.00</u>	<u>45,263.25</u>	<u>2,734.75</u>
Excess (Deficiency) of Revenues over Expenditures	<u>\$ (3,003.96)</u>	<u>(1,531.54)</u>	<u>1,472.42</u>

APPENDIX B

GAGING STATION RECORDS

Records of Streamflow from State line and other key stations are included herein. The record consists of description of the station and a table showing the daily discharge in cubic feet per second and monthly and yearly runoff in acre-feet for the 1975 water year.

The description of the station gives the location, drainage area, records available, type and history of gage, average discharge, extremes of discharge, general remarks, and a statement of cooperation where applicable. This is essentially the same information published in annual water-supply papers of the Geological Survey.

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total second-foot-days for the month. The line headed "Mean" gives the average flow in cubic feet per second (second-feet) during the month. Quantities for the month are expressed in acre-feet (line headed "Ac-ft").

Records included herein have been collected by the U. S. Geological Survey through cooperative agreement with the Bear River Commission and by the Utah Power & Light Company.

BEAR RIVER BASIN

104. East Fork Bear River near Evanston, Wyo.

LOCATION.--Lat 40°52'25", long 110°47'00", in SE1SW4 sec.26, T.2 N., R.10 E., Summit County, Utah, Wasatch National Forest, on right bank 4.1 mi (6.6 km) upstream from mouth, and 28.7 mi (46.2 km) south of Evanston.

DRAINAGE AREA.--34.6 mi² (89.6 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,760 ft (2,670 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 631 ft³/s (17.9 m³/s) July 4 (gage height, 4.15 ft or 1.265 m); minimum observed, 7.3 ft³/s (0.21 m³/s) Apr. 1.
 Period of record: Maximum discharge, 631 ft³/s (17.9 m³/s) July 4, 1975 (gage height, 4.15 ft or 1.265 m); minimum discharge, 5.9 ft³/s (0.17 m³/s) April 8, 1974.

REMARKS.--Records good except those for winter months, which are fair. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	11	10	8.0	10	7.3	11	137	452	146	32
2	13	17	11	10	8.0	10	8.0	11	168	471	130	32
3	13	16	12	10	8.0	9.0	8.0	12	189	484	118	30
4	15	18	11	10	8.0	9.0	8.0	11	174	502	110	29
5	17	21	10	10	9.0	9.0	9.0	10	214	485	104	28
6	16	18	11	9.0	9.0	10	9.0	9.4	278	471	98	28
7	16	16	11	9.0	9.0	10	8.0	9.8	333	485	97	27
8	15	14	11	9.0	9.0	9.0	8.0	9.2	358	474	93	26
9	15	12	11	9.0	9.0	9.0	8.0	11	288	446	88	27
10	14	12	11	9.0	9.0	9.0	8.0	15	210	426	83	29
11	14	12	12	9.0	9.0	8.0	8.0	22	198	418	80	31
12	13	12	12	9.0	9.0	8.0	8.0	21	229	407	83	30
13	13	12	12	9.0	9.0	8.0	8.0	22	301	417	80	30
14	13	12	12	9.0	9.0	8.0	9.0	32	415	396	73	30
15	13	11	12	9.0	9.0	8.0	9.0	42	455	378	69	28
16	13	11	12	8.0	9.0	8.0	10	66	446	405	65	26
17	13	11	12	8.0	9.0	8.0	11	81	363	339	60	25
18	12	11	12	8.0	9.0	9.0	10	109	313	294	56	23
19	12	11	12	8.0	9.0	10	9.0	123	241	269	54	23
20	12	11	12	8.0	9.0	9.0	9.0	120	203	248	54	23
21	14	11	12	8.0	9.0	8.0	10	94	184	235	54	22
22	14	11	12	8.0	9.0	8.0	10	86	168	229	50	21
23	17	11	12	8.0	9.0	8.0	11	67	185	217	47	20
24	16	11	12	8.0	9.0	9.0	11	65	240	198	45	20
25	14	12	12	8.0	9.0	10	12	75	285	183	43	19
26	13	12	11	8.0	9.0	9.0	12	83	237	172	41	19
27	13	12	11	8.0	9.0	8.0	11	79	275	162	40	18
28	14	12	11	8.0	9.0	8.0	10	73	336	156	38	18
29	15	12	11	8.0	---	8.0	10	74	383	162	36	18
30	14	12	11	8.0	---	8.0	10	90	423	210	35	17
31	14	---	11	8.0	---	8.0	---	107	---	171	33	---
TOTAL	433	389	356	268.0	248.0	270.0	279.3	1640.4	8229	10362	2203	749
MEAN	14.0	13.0	11.5	8.65	8.86	8.71	9.31	52.9	274	334	71.1	25.0
MAX	17	21	12	10	9.0	10	12	123	455	502	146	32
MIN	12	11	10	8.0	8.0	8.0	7.3	9.2	137	156	33	17
AC-FT	859	772	706	532	492	536	554	3250	16320	20550	4370	1490
CAL YR 1974	TOTAL	22402.0	MEAN	61.4	MAX	475	MIN	10	AC-FT	44430		
WTR YR 1975	TOTAL	25426.7	MEAN	69.7	MAX	502	MIN	7.3	AC-FT	50430		

BEAR RIVER BASIN

112. West Fork Bear River at Whitney Dam near Oakley, Utah

LOCATION.--lat 40°50'30", long 110°55'35", in NE¼ sec. 9, T.1 N., R.9 E., Summit County, Wasatch National Forest, on left bank, 1,380 ft (423 m) below Whitney Dam, 7 mi (11 km) upstream from Deer Creek, and 21.5 mi (34.6 km) northeast of Oakley.

DRAINAGE AREA.--6.79 mi² (17.59 km²).

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1965 published as, "at Whitney Dam Site."

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir since Aug. 4, 1966. Altitude of gage is 9,120 ft (2,780 m) from topographic map.

AVERAGE DISCHARGE.--9 years (1967-75), 9.10 ft³/s (0.258 m³/s), 6,590 acre-ft/yr (8.13 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 126 ft³/s (3.57 m³/s) Sept. 8 (gage height, 2.97 ft or 0.905 m); minimum daily, 1.0 ft³/s (0.028 m³/s) on many days.
Period of record: Maximum discharge, 145 ft³/s (4.11 m³/s) June 13, 1965 (gage height, 1.95 ft or 0.594 m); maximum gage height, 3.08 ft (0.939 m) June 26, 1967; no flow July 24 to Sept. 30, Nov. 16-29, 1966.

REMARKS.--Records good. Flow regulated by Whitney Reservoir. Usable capacity between sill of outlet and spillway crest, 4,200 acre-ft (5.18 hm³). Dead storage 509 acre-ft (617,000 m³). Construction of dam began Aug. 1, 1965 and completed October 1966. Storage began July 24, 1966, and reached sill of outlet Nov. 20, 1966. No diversion above station.

REVISIONS.--WRD Utah 1973: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.6	1.0	1.0	1.3	1.4	1.5	1.5	2.0	73	9.7	2.7
2	1.8	1.6	1.0	1.0	1.4	1.4	1.5	1.5	2.0	72	8.8	4.0
3	1.8	1.6	1.0	1.0	1.4	1.4	1.5	1.5	2.0	70	8.2	102
4	1.8	1.6	1.0	1.0	1.4	1.4	1.6	1.9	2.0	75	7.5	105
5	1.8	1.6	1.0	1.0	1.4	1.4	1.6	1.5	2.0	74	7.0	110
6	1.8	1.6	1.0	1.0	1.4	1.4	1.6	1.5	2.0	67	6.6	117
7	1.9	1.6	1.0	1.0	1.4	1.4	1.5	1.5	3.0	58	6.3	118
8	1.8	1.5	1.0	1.0	1.4	1.4	1.4	1.5	4.0	57	5.7	118
9	1.8	1.5	1.0	1.0	1.4	1.4	1.4	1.5	5.0	56	5.4	116
10	1.9	1.3	1.0	1.0	1.4	1.5	1.5	1.5	4.5	53	5.2	115
11	1.9	1.3	1.0	1.0	1.4	1.5	1.6	1.5	4.0	49	5.0	116
12	1.7	1.0	1.0	1.0	1.4	1.5	1.6	1.5	3.5	46	5.0	114
13	1.6	1.0	1.0	1.0	1.4	1.5	1.6	1.5	3.0	28	5.4	113
14	1.6	1.0	1.0	1.1	1.4	1.5	1.6	1.5	2.5	25	5.3	103
15	1.6	1.0	1.0	1.1	1.4	1.5	2.0	1.5	2.3	32	5.2	95
16	1.6	1.0	1.0	1.2	1.4	1.5	2.0	1.5	2.3	31	5.0	90
17	1.6	1.0	1.0	1.2	1.4	1.5	1.9	2.0	2.3	29	4.6	84
18	1.6	1.0	1.0	1.2	1.4	1.5	1.8	3.0	2.3	25	4.2	77
19	1.6	1.0	1.0	1.2	1.4	1.5	1.7	4.0	2.3	22	3.8	76
20	1.6	1.0	1.0	1.2	1.3	1.5	1.6	5.0	2.4	19	4.0	62
21	1.6	1.0	1.0	1.3	1.3	1.5	1.5	4.0	2.4	17	4.7	45
22	1.7	1.0	1.0	1.2	1.3	1.5	1.5	3.0	2.5	15	5.2	36
23	1.7	1.0	1.0	1.2	1.3	1.5	1.5	2.5	2.5	14	4.6	30
24	1.6	1.0	1.0	1.2	1.3	1.5	1.5	2.0	2.6	13	3.9	23
25	1.6	1.0	1.0	1.2	1.3	1.6	1.5	2.0	2.7	12	3.5	16
26	1.6	1.0	1.0	1.3	1.3	1.6	1.5	2.0	2.7	11	3.4	11
27	1.6	1.0	1.0	1.3	1.3	1.4	1.5	2.0	3.5	11	3.4	8.6
28	1.6	1.0	1.0	1.3	1.3	1.4	1.5	2.0	3.5	12	3.3	7.7
29	1.6	1.0	1.0	1.3	---	1.4	1.5	2.0	71	13	3.1	7.2
30	1.6	1.0	1.0	1.3	---	1.5	1.5	2.0	75	13	3.0	7.0
31	1.6	---	1.0	1.3	---	1.5	---	2.0	---	11	2.9	---
TOTAL	52.4	35.8	31.0	35.1	38.2	45.5	47.5	63.9	253.3	1103	158.9	2059.2
MEAN	1.69	1.19	1.00	1.13	1.36	1.47	1.58	2.06	8.44	35.6	5.13	68.6
MAX	1.9	1.6	1.0	1.3	1.4	1.6	2.0	5.0	75	75	9.7	118
MIN	1.6	1.0	1.0	1.0	1.3	1.4	1.4	1.5	2.0	11	2.9	2.7
AC-FT	104	71	61	70	76	90	94	127	502	2190	319	4080
CAL YR 1974 TOTAL	4714.03			MEAN 12.9	MAX 100	MIN .52	AC-FT 9350					
KTR YR 1975 TOTAL	3923.80			MEAN 10.8	MAX 118	MIN 1.0	AC-FT 7780					

BEAR RIVER BASIN

114. West Fork Bear River below Deer Creek, near Evanston, Wyo.

LOCATION.--lat 40°56'40", long 110°51'40", in NW¼ SW¼ sec. 6, T.2 N., R.10 E., Summit County, Utah, on left bank 0.8 mi (1.3 km) downstream from Deer Creek, 2.1 mi (3.4 km) upstream from mouth, and 22.9 mi (36.8 km) south of Evanston.

DRAINAGE AREA.--52.2 mi² (135.2 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,190 ft (2,496 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 511 ft³/s (14.5 m³/s) June 8 (gage height, 4.00 ft or 1.219 m); minimum daily, 6.5 ft³/s (0.18 m³/s) Jan. 25.
 Period of record: Maximum discharge, 511 ft³/s (14.5 m³/s) June 8, 1975 (gage height, 4.00 ft or 1.219 m); minimum daily discharge, 6.5 ft³/s (0.18 m³/s) Jan. 25, 1975.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Whitney Reservoir. Usable capacity between sill of outlet and spillway crest, 4,200 acre-ft (5.18 hm³). Dead storage 500 acre-ft (617,000 m³). Construction of dam began Aug. 1, 1965 and completed October 1966. Storage began July 24, 1966, and reached sill of outlet Nov. 20, 1966. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	12	11	8.0	8.2	12	14	288	257	41	14
2	11	14	12	11	8.0	8.6	12	13	326	250	38	47
3	11	13	12	11	8.9	7.9	12	14	320	244	35	142
4	14	13	12	11	8.4	8.0	12	17	295	252	32	142
5	16	13	15	11	8.1	8.0	10	18	327	253	31	141
6	14	13	13	11	8.0	7.8	9.1	15	340	235	29	139
7	14	13	12	11	8.0	7.6	9.0	14	386	215	28	137
8	13	12	12	11	8.4	8.0	9.0	13	429	208	26	136
9	13	12	12	11	8.0	7.1	9.0	17	311	193	25	136
10	13	12	12	11	8.0	7.1	10	27	225	177	25	135
11	12	12	12	11	8.0	6.9	12	36	218	168	24	133
12	12	12	12	11	8.0	7.0	15	31	254	163	26	131
13	12	11	12	11	7.8	8.0	18	33	284	136	27	129
14	12	11	12	11	7.5	7.9	20	51	315	120	25	124
15	11	11	12	11	8.0	8.0	21	70	309	129	25	116
16	11	11	12	11	8.0	8.0	18	93	286	121	24	108
17	11	11	12	11	9.0	8.0	15	122	244	113	22	100
18	11	11	12	11	9.0	8.0	13	164	272	94	21	93
19	11	11	12	11	9.0	8.0	12	217	221	85	21	85
20	11	11	13	11	9.0	8.0	11	207	201	78	23	80
21	14	11	13	11	9.0	8.0	11	142	206	72	25	66
22	14	11	13	11	9.0	8.0	10	104	174	62	26	54
23	17	11	13	8.6	10	8.0	11	89	170	57	22	46
24	15	11	13	7.1	11	8.0	13	118	187	53	20	37
25	14	11	12	6.5	11	8.4	14	143	195	49	19	28
26	13	11	12	7.0	11	9.0	14	134	160	47	18	22
27	13	11	12	7.0	11	9.0	14	137	168	46	18	18
28	14	11	11	7.0	8.2	9.0	15	117	203	50	18	17
29	14	12	11	7.0	---	9.0	14	130	249	59	16	16
30	14	12	11	7.0	---	10	14	188	261	53	16	15
31	14	---	11	7.0	---	11	---	235	---	46	15	---
TOTAL	400	354	377	306.2	245.3	253.5	389.1	2723	7824	4085	761	2597
MEAN	12.9	11.8	12.2	9.88	8.76	8.18	13.0	87.8	261	132	24.5	86.2
MAX	17	15	15	11	11	11	21	235	429	257	41	142
MIN	11	11	11	6.5	7.5	6.9	9.0	13	160	46	15	14
AC-FT	793	702	748	607	487	503	772	5400	15520	8100	1510	5130
CAL YR 1974	TOTAL	21922.0	MEAN	60.1	MAX	379	MIN	10	AC-FT	43480		
WTR YR 1975	TOTAL	20305.1	MEAN	55.6	MAX	429	MIN	6.5	AC-FT	40280		

BEAR RIVER BASIN

115. Bear River near Utah-Wyoming State Line.

LOCATION.--Lat 40°57'55", long 110°51'10", in SE¼ sec. 30, T.3 N., R.10 E., Summit County, Utah, on left bank just downstream from West Fork, 2.8 mi (4.5 km) upstream from Utah-Wyoming State line.

DRAINAGE AREA.--172 mi² (445 km²).

PERIOD OF RECORD.--July 1942 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,965 ft (2,427.7 m) from river-profile map.

AVERAGE DISCHARGE.--33 years, 194 ft³/s (5.49 m³/s), 140,600 acre-ft/yr (173 km³/yr).

EXTREMES.--Current year: Maximum discharge, 2,210 ft³/s (62.6 m³/s) June 16 (gage height, 3.50 ft or 1.067 m); minimum daily, 35 ft³/s (0.99 m³/s) Nov. 18.
 Period of record: Maximum discharge, 2,980 ft³/s (84.4 m³/s) June 6, 1968 (gage height, 3.79 ft or 1.155 m); maximum gage height 4.27 ft (1.301 m) June 6, 1957; minimum discharge determined, 16 ft³/s (0.45 m³/s) Apr. 11, 1951, Nov. 5, 1954, Nov. 1, 1955, Oct. 30, 1956.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated slightly by Whitney Reservoir completed 1966. Usable capacity 4,200 acre-ft (5.18 km³). Three diversions above station for irrigation of about 265 acres (107,000 m²) above and 2,600 acres (10.5 km²) below station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	49	40	40	40	43	46	45	734	1480	319	64
2	46	46	40	40	40	44	45	47	897	1550	263	91
3	46	45	40	40	42	43	45	54	1000	1520	227	185
4	53	40	40	40	41	41	44	63	887	1590	199	168
5	59	45	37	40	40	46	42	56	1010	1510	184	165
6	56	45	36	40	40	44	42	51	1160	1390	170	169
7	55	44	36	40	41	42	42	49	1380	1360	166	167
8	53	44	40	40	41	42	45	49	1680	1340	157	166
9	52	45	40	40	41	44	47	56	1220	1270	153	173
10	52	39	40	40	42	42	44	77	844	1240	145	176
11	50	37	40	40	42	44	47	107	788	1170	136	177
12	48	43	40	40	43	42	47	113	891	1160	144	174
13	47	41	40	40	43	46	45	104	1070	1080	160	176
14	47	38	40	40	44	45	43	162	1420	1070	142	175
15	46	39	45	40	47	45	42	224	1610	1050	134	161
16	46	36	45	40	45	43	42	290	1750	1070	128	149
17	46	37	45	45	45	49	41	372	1370	912	115	142
18	44	35	44	45	45	44	41	482	1260	765	107	129
19	43	37	39	50	45	44	42	624	1020	701	100	116
20	43	38	38	50	45	45	41	624	860	636	108	130
21	49	44	38	55	45	45	42	431	802	584	113	112
22	49	39	40	55	45	40	49	300	708	572	108	97
23	57	37	40	45	45	45	51	248	746	529	93	87
24	53	41	40	39	50	45	52	269	882	488	85	79
25	49	38	40	39	48	45	56	347	1060	447	81	71
26	47	37	40	40	45	45	49	327	828	412	76	62
27	47	40	40	40	42	45	44	352	910	382	79	59
28	48	40	40	40	42	45	48	297	1090	358	78	58
29	50	40	40	40	---	45	43	304	1240	382	73	57
30	48	40	40	40	---	48	46	446	1390	484	69	57
31	48	---	40	40	---	45	---	606	---	394	67	---
TOTAL	1523	1219	1243	1303	1214	1371	1353	7576	32707	28916	4181	3792
MEAN	49.1	40.6	40.1	42.0	43.4	44.2	45.1	244	1090	933	135	126
MAX	59	49	45	55	50	49	56	624	1610	1590	319	185
MIN	43	35	36	39	40	40	41	45	708	358	67	57
AC-FT	3020	2420	2470	2580	2410	2720	2680	15030	64870	57350	8290	7520
CAL YR 1974	TOTAL	76554	MEAN 210	MAX 1710	MIN 35	AC-FT 151800						
WTR YR 1975	TOTAL	86398	MEAN 237	MAX 1810	MIN 35	AC-FT 171400						

PEAK DISCHARGE (BASE, 1,100 ft³/s)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-8	0500	3.33	2040	7-5	0100	3.50	1970
6-16	0300	3.50	2210				

BEAR RIVER BASIN

157. Sulphur Creek above reservoir, near Evanston, Wyoming.

LOCATION.--Lat 41°08'38", long 110°48'19", in SE¼SW¼ sec.35, T.14 N., R.119 W., Uinta County, on right bank 1.2 mi (1.9 km) downstream from Willow Creek, 2 mi (3.2 km) upstream from Sulphur Creek Dam, and 11.5 mi (18.5 km) southeast of Evanston.

DRAINAGE AREA.--64.2 mi² (166.3 km²).

PERIOD OF RECORD.--October 1957 to current year. Monthly discharge only for October and November 1957, published in WSP 1734.

GAGE.--Water-stage recorder. Altitude of gage is 7,180 ft (2,188 m) from topographic map.

AVERAGE DISCHARGE.--18 years, 16.9 ft³/s (0.479 m³/s), 12,240 acre-ft/yr (15.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 353 ft³/s (10.0 m³/s) May 10 (gage height, 4.60 ft or 1.402 m); minimum, 0.28 ft³/s (0.008 m³/s) Sept. 2.
 Period of record: Maximum discharge, 1,220 ft³/s (34.6 m³/s) Apr. 21, 1965 (gage height, 6.02 ft or 1.835 m); maximum gage height, 6.19 ft (1.887 m) Mar. 11, 1972 (backwater from ice); no flow at times most years.

REMARKS.--Records good except those for winter months, which are poor. Several diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	4.3	3.5	3.0	4.5	6.0	5.6	26	116	15	2.4	.33
2	.36	5.4	3.5	3.0	4.5	7.0	5.7	50	138	15	1.9	.33
3	.39	5.4	3.5	3.0	4.5	7.0	5.7	98	151	18	1.3	.33
4	.45	5.4	4.0	3.0	4.0	7.0	15	141	124	20	1.2	.48
5	.45	5.4	4.5	3.0	4.0	6.0	20	112	126	16	1.2	.54
6	.45	4.5	5.0	3.0	4.0	6.0	40	63	132	14	3.4	.45
7	.45	5.1	4.5	3.0	4.0	7.0	35	39	155	12	4.9	.42
8	.45	4.9	4.0	3.0	4.0	8.0	30	53	178	8.9	4.5	.39
9	.45	4.0	3.5	3.0	4.0	8.0	25	104	120	9.2	5.6	.42
10	.42	4.7	3.3	3.0	4.0	8.0	30	176	102	10	6.7	.45
11	.51	4.7	3.3	3.0	4.5	8.0	31	152	60	12	6.1	.57
12	.92	4.3	3.3	3.0	4.5	9.0	35	107	53	31	6.1	.68
13	.84	5.4	3.2	3.5	5.0	9.0	44	61	59	20	6.7	1.6
14	.84	5.6	3.2	3.5	5.0	10	56	86	73	10	5.9	2.5
15	.84	5.1	3.1	3.5	5.0	10	56	105	57	10	5.9	2.5
16	.84	5.6	3.1	3.5	5.0	10	52	116	48	10	5.6	2.2
17	.92	4.9	3.0	3.5	4.5	9.0	40	124	34	17	4.9	2.4
18	1.0	5.4	3.0	3.5	4.5	9.0	29	121	106	8.9	4.0	2.8
19	1.0	5.4	2.9	3.5	4.5	9.0	22	145	113	9.2	3.4	.45
20	1.1	4.9	3.0	4.0	4.5	8.0	21	178	92	11	2.5	.45
21	1.3	5.6	3.0	4.0	4.5	7.0	28	86	149	10	2.7	.42
22	1.9	6.1	3.0	4.0	4.5	7.0	50	129	104	9.2	2.7	.36
23	2.4	5.1	3.0	4.0	4.5	7.0	75	156	58	6.7	2.0	.36
24	2.5	4.5	3.0	4.0	4.5	6.0	45	112	45	2.5	1.2	.36
25	1.9	4.3	3.0	4.5	4.5	6.0	54	116	39	2.0	1.0	.42
26	2.2	4.0	3.0	4.5	4.6	5.6	45	75	30	2.0	.92	.33
27	2.2	4.0	3.0	4.0	4.6	5.6	31	86	23	2.0	.84	.30
28	2.4	4.0	3.0	4.0	5.0	5.6	27	72	24	2.5	.76	.30
29	2.7	3.8	3.0	4.0	---	5.6	22	86	21	4.0	.54	.30
30	3.4	3.6	3.0	4.0	---	5.6	24	84	14	4.9	.39	.30
31	3.6	---	3.0	4.0	---	5.6	---	107	---	2.7	.36	---
TOTAL	39.54	145.4	103.4	109.5	125.2	227.6	999.0	3166	2542	325.7	97.61	23.74
MEAN	1.28	4.85	3.34	3.53	4.47	7.34	33.3	102	84.7	10.5	3.15	.79
MAX	3.6	6.1	5.0	4.5	5.0	10	75	178	178	31	6.7	2.8
MIN	.36	3.6	2.9	3.0	4.0	5.6	5.6	26	14	2.0	.36	.30
AC-FT	78	288	205	217	248	451	1980	6280	5040	646	194	47
CAL YR 1974 TOTAL	11463.13							22740				
WTR YR 1975 TOTAL	7904.69							15680				
MEAN 31.4												
MAX 409												
MIN .24												
AC-FT 22740												
MIN .30												
AC-FT 15680												

BEAR RIVER BASIN

159. Sulphur Creek below reservoir, near Evanston, Wyoming.

LOCATION.--Lat 41°09'21", long 110°50'05", in SE1/4SE1/4 sec.28, T.14 N., R.119 W., Uinta County, on left bank 400 ft (122 m) downstream from Sulphur Creek Dam. Dam 6.3 mi (10.1 km) upstream from mouth, and 10.5 mi (16.9 km) southeast of Evanston.

DRAINAGE AREA.--69.2 mi² (179.2 km²).

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and concrete V-notch control. Altitude of gage is 7,120 ft (2,170 m) from topographic map.

AVERAGE DISCHARGE.--6 years (1958-64), 11.2 ft³/s (0.317 m³/s) 8,110 acre-ft/yr (10.0 hm³/yr). 11 years (1964-75), 27.6 ft³/s (0.782 m³/s) 20,050 acre ft/yr (24.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 242 ft³/s (6.85 m³/s) June 22 (gage height, 3.00 ft or 0.914 m); no flow on many days.
 1958-64: Maximum discharge, 164 ft³/s (4.64 m³/s) June 29, 1959 (gage height, 3.67 ft or 1.119 m); no flow at times each year.
 1964-75: Maximum discharge, 425 ft³/s (12.0 m³/s) May 10, 1974 (gage height, 3.71 ft or 1.131 m); no flow at times each year except 1972.

REMARKS.--Records good. Flow regulated by Sulphur Creek Reservoir 400 ft (122 m) upstream (capacity, 7,100 acre-ft or 8.75 hm³). Enlargement completed November 1964. Prior to enlargement (capacity, 4,600 acre-ft or 5.67 hm³). Records prior to 1965 do not include flow over spillway of the dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.6				0	25	1.4	30	9.9	16
2		0	1.7				0	25	1.3	5.2	9.9	22
3		0	1.7				0	25	1.3	5.2	9.1	41
4		0	1.7				0	80	1.3	5.4	8.3	41
5		0	1.7				12	130	1.2	5.4	7.8	40
6		0	1.7				25	130	1.2	5.6	8.1	40
7		.09	1.7				25	126	1.3	6.5	8.1	40
8		3.0	1.7				25	126	49	8.8	7.8	46
9		3.0	1.7				25	125	114	11	7.8	54
10		2.9	1.7				25	125	114	13	7.8	54
11		2.9	.92				25	126	114	15	8.1	53
12		3.0	0				25	126	106	28	8.3	53
13		3.0	0				25	126	81	50	8.8	53
14		3.9	0				25	126	80	50	9.6	53
15		4.9	0				25	125	65	42	9.3	53
16		4.9	0				25	125	22	39	9.3	57
17		4.7	0				25	125	22	45	9.3	68
18		4.9	0				25	120	22	42	8.5	68
19		4.7	0				25	87	98	36	7.8	67
20		4.7	0				25	88	136	31	7.4	67
21		4.7	0				25	94	161	26	9.8	63
22		4.9	0				25	119	208	22	19	45
23		4.9	0				25	119	168	18	19	44
24		4.9	0				25	120	136	15	19	44
25		4.9	0				25	153	95	13	19	44
26		4.9	0				25	176	54	11	19	38
27		4.9	0				25	174	55	10	19	12
28		4.9	0				25	172	54	10	19	12
29		3.8	0				25	109	54	9.6	19	12
30		1.6	0				25	7.8	55	10	18	12
31		---	0				---	1.4	---	10	16	---
TOTAL	0	94.99	17.82	0	0	0	637	3336.2	2072.0	628.7	366.8	1312
MEAN	0	3.17	.57	0	0	0	21.2	108	69.1	20.3	11.8	43.7
MAX	0	4.9	1.7	0	0	0	25	176	208	50	19	68
MIN	0	0	0	0	0	0	0	1.4	1.2	5.2	7.4	12
AC-FT	0	188	35	0	0	0	1260	6620	4110	1250	728	2600
CAL YR 1974	TOTAL	14518.71	MEAN 39.8	MAX 392	MIN 0	AC-FT 28800						
WTR YR 1975	TOTAL	8465.51	MEAN 23.2	MAX 208	MIN 0	AC-FT 16790						

BEAR RIVER BASIN

195. Chapman Canal at State Line, near Evanston, Wyoming.

LOCATION.--Lat 41°24'24", long 111°02'26", in SE¼ sec.36, T.17 N., R.121 W., Uinta County, on left bank at highway bridge, 6.5 mi (10.5 km) downstream from headgates and 10 mi (16 km) northwest of Evanston.

PERIOD OF RECORD.--April 1942 to current year (prior to October 1944 Irrigation seasons only). Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and flashboard control. Altitude of gage is 6,570 ft (2,003 m) from river-profile map. Prior to Oct. 11, 1946, nonrecording gage and Oct. 11, 1946 to Aug. 2, 1961, water-stage recorder at site 20 ft (6 m) downstream at same datum.

AVERAGE DISCHARGE.--31 years (1944-75), 20.1 ft³/s (0.570 m³/s) 14,560 acre-ft/yr (18.0 hm³/yr).

EXTREMES.--Period of record: Maximum daily discharge, 143 ft³/s (4.05 m³/s) June 24, 1970; no flow at times each year.

REMARKS.--Records fair. Canal diverts water from Bear River in NW¼ sec.36, T.16 N., R121 W. Many diversions above station for irrigation in Wyoming. Flow at station is for storage in Reponset Reservoir, Utah, and irrigation in Saleratus basin, Utah.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	54				0	26	17	53	123	26	.36
2	6.8	56				0	24	17	66	114	28	.24
3	6.0	53				0	23	13	67	101	26	0
4	7.6	50				0	23	12	70	108	25	0
5	7.6	45				0	24	11	60	112	19	2.4
6	8.4	43				0	23	7.4	53	112	13	2.6
7	10	44				0	22	2.6	63	108	9.7	1.9
8	13	41				0	21	2.5	86	120	8.8	2.6
9	19	48				0	20	2.8	114	118	8.4	1.6
10	20	51				0	20	2.4	86	92	7.8	1.6
11	21	43				0	19	2.5	44	93	6.6	1.4
12	20	40				0	19	2.4	44	107	5.6	1.8
13	21	51				0	19	3.7	52	106	5.3	2.2
14	21	51				0	19	14	92	104	4.8	2.0
15	21	48				0	19	15	123	99	4.3	4.6
16	22	51				0	19	17	137	95	3.8	19
17	23	42				0	19	17	131	119	3.3	20
18	25	48				0	19	18	117	115	2.8	20
19	29	48				0	19	19	125	95	2.2	21
20	29	48				0	20	22	118	85	1.6	23
21	32	42				0	22	17	120	80	.67	27
22	38	59				0	23	16	120	79	1.0	24
23	44	56				15	21	16	107	85	4.3	20
24	50	47				28	19	11	119	83	1.9	21
25	49	39				28	19	15	129	79	.85	19
26	44	3.1				28	19	12	139	65	.94	18
27	39	2.2				28	18	13	134	48	.67	18
28	39	2.0				28	17	19	131	46	.58	17
29	41	1.3				28	17	30	126	32	.49	15
30	47	.49				28	17	29	131	25	.58	15
31	51	---				28	---	43	---	26	.49	---
TOTAL	812.0	1207.09	0	0	0	239	609	439.3	2957	2776	226.47	322.30
MEAN	26.2	40.2	0	0	0	7.71	20.3	14.2	98.6	89.5	7.31	10.7
MAX	51	59	0	0	0	28	26	43	139	123	28	27
MIN	6.0	.49	0	0	0	0	17	2.4	44	25	.49	0
AC-FT	1610	2390	0	0	0	474	1210	871	5870	5910	449	639
CAL YR 1974	TOTAL	8901.72	MEAN	24.4	MAX	122	MIN	0	AC-FT	17660		
WTR YR 1975	TOTAL	9588.16	MEAN	26.3	MAX	139	MIN	0	AC-FT	19020		

BEAR RIVER BASIN

201. Bear River above reservoir, near Woodruff, Utah.

LOCATION.--Lat 41°26'04", long 111°01'01", in NW¼NW¼ sec.29, T.17 N., R.120 W., Uinta County, Wyoming, on right bank 9.3 mi (15.0 km) upstream from Woodruff Narrows Dam and 10 mi (16 km) southeast of Woodruff.

DRAINAGE AREA.--752 mi² (1,948 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,455 ft (1,967.5 m) from river-profile map.

AVERAGE DISCHARGE.--14 years, 259 ft³/s (7.33 m³/s) 187,600 acre-ft/yr (231 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,080 ft³/s (58.9 m³/s) June 10 (gage height, 5.34 ft or 1.628 m); minimum daily, 9.3 ft³/s (0.26 m³/s) Oct. 1.

Period of record: Maximum discharge, 3,340 ft³/s (94.6 m³/s) June 13, 14, 1965 (gage height, 5.89 ft or 1.795 m); minimum, 0.1 ft³/s (0.003 m³/s) Aug. 24, 1964.

REMARKS.--Records good except those for winter months, which are fair. Diversion for irrigation of about 43,500 acres (176 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	53	56	60	60	60	79	208	894	1310	232	22
2	9.8	64	62	60	60	65	63	232	1110	1350	202	18
3	12	60	64	60	60	65	62	285	1260	1420	172	20
4	13	50	71	60	60	68	82	447	1340	1490	152	27
5	13	37	76	60	60	70	95	566	1240	1540	127	22
6	14	31	76	60	60	70	123	465	1320	1490	105	20
7	19	31	72	60	60	70	116	370	1490	1390	77	22
8	23	28	62	60	60	70	103	345	1760	1340	69	25
9	18	31	54	60	60	70	90	380	2000	1270	66	27
10	15	38	57	60	60	70	86	465	1980	1180	56	31
11	15	31	60	60	60	80	101	540	1260	1120	52	40
12	14	24	57	60	60	80	116	584	1120	1230	48	49
13	15	24	62	60	60	80	132	494	1200	1250	52	53
14	15	33	59	60	60	80	169	482	1340	1140	66	64
15	15	28	62	70	60	80	187	572	1650	1070	63	69
16	15	31	54	70	60	80	218	686	1840	990	56	53
17	15	27	59	70	60	80	199	787	1850	1030	49	53
18	17	22	56	70	60	75	184	894	1570	831	44	52
19	18	27	54	70	60	100	169	1010	1590	674	37	50
20	16	24	56	70	58	140	190	1240	1360	584	34	50
21	17	26	60	60	55	152	211	1100	1400	512	34	59
22	22	43	63	60	55	150	239	960	1350	441	36	66
23	31	44	56	60	55	91	326	1000	1100	392	36	56
24	40	28	50	60	55	76	340	882	1060	335	31	57
25	43	32	53	60	55	99	370	870	1180	290	30	52
26	33	81	60	60	58	99	345	864	1160	239	29	50
27	26	76	60	60	55	74	277	850	960	205	28	44
28	23	74	60	60	55	60	225	838	972	175	28	32
29	26	74	60	60	---	60	214	769	1080	208	28	27
30	36	59	60	60	---	82	205	680	1210	218	27	29
31	48	---	60	60	---	99	---	769	---	258	25	---
TOTAL	646.1	1231	1871	1920	1638	2595	5316	20642	40666	26972	2091	1239
MEAN	20.8	41.0	60.4	61.9	58.5	83.7	177	666	1356	870	67.5	41.3
MAX	48	81	76	70	60	152	370	1240	2000	1540	232	69
MIN	9.3	22	50	60	55	60	62	208	894	175	25	18
AC-FT	1280	2440	3710	3810	3250	5150	10540	40940	80660	53500	4150	2460
CAL YR 1974 TOTAL	113637.8		MEAN 311	MAX 2060		MIN 6.6	AC-FT 225400					
WTR YR 1975 TOTAL	106827.1		MEAN 293	MAX 2000		MIN 9.3	AC-FT 211900					

BEAR RIVER BASIN

202. Woodruff Narrows Reservoir near Woodruff, Utah.

LOCATION.--Lat 41°30'10", long 111°00'55", in sec.32, T.18 N., R.120 W., Uinta County, Wyoming, in gate house on dam, 5.6 mi (9.0 km) upstream from Wyoming-Utah State line, and 7.7 mi (12.4 km) east of Woodruff.

DRAINAGE AREA.--784 mi² (2,031 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and mercury manometer. Datum of gage is 6,495 ft (1,952.2 m) from levels by Bureau of Reclamation.

EXTREMES.--Current year: Maximum contents, 33,080 acre-ft (40.8 hm³) June 10 (gage height, 38.3 ft or 11.67 m); minimum, 12,740 acre-ft (15.7 hm³) Oct. 5-24.
 Period of record: Maximum contents, 33,080 acre-ft (40.8 hm³) May 11, 1974, June 10, 1975 (gage height, 38.3 ft or 11.67 m); minimum 6,480 acre-ft (7.99 hm³) Sept. 11-13, 1966.

REMARKS.--Reservoir formed by earth-fill, rock faced dam. Lower portion of spillway cut in natural rock. Storage began Jan. 5, 1962. Total capacity 28,000 acre-ft (34.5 hm³) below spillway crest, which includes 18,240 acre-ft (22.5 hm³) of Compact allocation for irrigation, 4,260 acre-ft (5.25 hm³) of irrigation holdover, 4,000 acre-ft (4.93 hm³) for winter release for fish propagation in Utah, and 1,500 acre-ft (1.85 hm³) of storage for fish propagation in Wyoming. Gage height of spillway is 35.3 ft (10.76 m). Figures given herein represent total contents.

Capacity table (gage height, in feet, and total contents, in acre-feet)

21	10,760	30	20,180
22	11,600	32	23,040
24	15,360	34	25,880
26	16,570	36	29,000
28	17,770	38	32,520

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
 INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12820	13090	14370	16600	18880	21180	27830	28710	30630	31690	28710	27550
2	12820	13180	14480	16710	19000	21320	27830	28710	31030	31690	28710	27550
3	12820	13270	14480	16810	19000	21600	27970	28660	31370	31850	28560	27550
4	12820	13270	14590	16810	19120	22020	28120	29180	31530	32020	28560	27550
5	12740	13360	14700	16920	19120	22450	28120	29550	31530	32020	28410	27550
6	12740	13360	14800	17020	19240	22740	28260	29550	31690	32020	28410	27550
7	12740	13360	14900	17020	19360	23160	28260	29370	31850	32020	28260	27550
8	12740	13470	14900	17130	19360	23410	28260	29370	32180	31850	28120	27370
9	12740	13470	15000	17130	19480	23760	28260	29370	32700	31690	28120	27370
10	12740	13470	15000	17230	19600	24010	28260	29550	33080	31530	28120	26840
11	12740	13580	15110	17330	19600	24140	28260	29740	32020	31370	28120	26490
12	12740	13580	15110	17330	19720	24410	28260	29930	31690	31530	27970	26140
13	12740	13580	15220	17440	19840	24560	28410	29740	31690	31530	27970	25970
14	12740	13580	15220	17440	19840	24860	28410	29740	31690	31370	27970	25650
15	12740	13580	15340	17550	19960	25010	28560	29930	32020	31370	27970	25500
16	12740	13580	15450	17550	20060	25010	28710	30080	32520	31200	27970	25010
17	12740	13580	15450	17660	20180	25170	28710	30230	32700	31200	27970	24710
18	12740	13690	15570	17660	20180	25340	28710	30410	32520	30850	27970	24410
19	12740	13690	15570	17770	20270	25500	28560	30080	32350	30410	27830	24140
20	12740	13690	15670	17770	20360	25800	28560	31370	32180	30230	27830	23890
21	12740	13690	15780	17890	20360	26140	28710	31370	32020	29930	27830	23640
22	12740	13800	15780	18000	20510	26320	28710	31200	32020	29740	27830	23520
23	12740	13800	15890	18130	20510	26490	28860	31030	31690	29550	27830	23290
24	12740	13910	16000	18130	20700	26660	29000	30850	31370	29370	27830	23160
25	12820	13910	16000	18260	20700	27020	29180	30850	31370	29180	27690	22890
26	12820	13910	16120	18260	20890	27200	29180	30630	31530	29000	27690	22590
27	12820	14030	16240	18390	21030	27200	29000	30630	31200	28860	27690	22310
28	12820	14140	16370	18510	21180	27370	28860	30630	31030	28710	27690	21880
29	12900	14260	16370	18640	---	27550	28860	30410	31200	28710	27690	21600
30	13000	14260	16490	18760	---	27550	28710	30410	31530	28560	27690	21320
31	13000	---	16600	18760	---	27690	---	30410	---	28710	27690	---
MAX	13000	14260	16600	18760	21180	27690	29180	31370	33080	32020	28710	27550
MIN	12740	13090	14370	16600	18880	21180	27830	28710	30630	28560	27690	21320
{+}	23.6	24.8	26.9	28.8	30.7	35.1	35.8	36.8	37.4	35.8	35.1	30.8
{-}	+100	+1260	+2340	+2160	+2420	+6510	+1020	+1700	+1120	-2820	-1020	-6370
CAL YR 1974.....	+ 8900											
WTR YR 1975.....	+ 8420											

† Gage height, in feet, at 2400 of last day of month.

‡ Change in contents, in acre-feet.

BEAR RIVER BASIN

203. Bear River below reservoir, near Woodruff, Utah.

LOCATION.--Lat 41°30'20", long 111°00'50", in NW¼NW¼ sec.32, T.18 N., R.120 W., Uinta County, Wyoming, on right bank, 1,100 ft (340 m) below Woodruff Narrows Dam, 1.6 mi (2.6 km) upstream from Salt Creek, 5.4 mi (8.7 km) upstream from Wyoming-Utah State line, and 7.7 mi (12.4 km) east of Woodruff.

DRAINAGE AREA.--784 mi² (2,031 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,398.35 ft (1,950.217 m) above mean sea level (levels by Utah Water Resources Division from Bureau of Reclamation bench mark). Prior to Sept. 26, 1962, at site 176 ft (53.3 m) upstream at same datum.

AVERAGE DISCHARGE.--14 years, 252 ft³/s (7.15 m³/s) 182,600 acre-ft/yr (225 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,970 ft³/s (55.8 m³/s) June 13 (gage height, 7.02 ft or 2,140 m); minimum, 36 ft³/s (0.453 m³/s) Oct. 11, 13.
 Period of record: Maximum discharge, 3,000 ft³/s (85.0 m³/s) June 14, 1965 (gage height, 7.88 ft or 2.402 m); no flow July 4, 5, 1962.

REMARKS.--Records excellent. Flow regulated by Woodruff Narrows Reservoir beginning January 1962 (see sta 10020200). Diversions for irrigation of about 43,500 acres (176 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	22	23	24	25	33	222	760	1200	212	34
2	20	18	22	23	24	25	40	218	864	1290	204	31
3	20	18	22	23	24	25	45	240	1030	1360	185	31
4	20	19	22	23	24	25	51	305	1210	1430	165	31
5	17	19	22	23	24	25	61	409	1210	1490	148	31
6	17	19	22	23	24	25	76	472	1230	1540	130	31
7	17	19	22	23	24	25	96	444	1330	1470	110	31
8	17	19	22	23	24	25	101	407	1510	1410	91	31
9	17	19	22	23	24	26	97	391	1710	1360	79	61
10	17	21	23	23	24	26	93	409	1960	1280	71	181
11	17	22	23	23	24	26	92	465	1750	1200	64	180
12	17	22	23	23	24	26	99	515	1350	1170	58	180
13	17	22	23	23	24	26	107	536	1230	1250	54	179
14	17	22	23	23	24	26	119	496	1250	1200	53	177
15	17	22	22	23	24	27	141	507	1410	1130	54	177
16	17	22	22	23	24	26	169	563	1610	1090	52	177
17	17	22	22	23	24	27	197	636	1770	1040	52	177
18	17	22	22	23	24	26	196	733	1770	980	48	177
19	17	22	22	23	24	27	185	826	1690	847	49	177
20	17	22	22	23	25	27	179	977	1590	723	40	177
21	17	22	22	23	25	27	186	1080	1490	623	40	177
22	17	22	22	23	25	27	201	1030	1470	534	41	177
23	17	22	22	23	25	27	242	990	1330	472	43	177
24	18	22	23	23	25	27	296	956	1170	417	34	177
25	18	22	23	23	25	27	331	859	1120	358	34	177
26	18	22	23	23	25	27	359	850	1180	308	32	176
27	18	22	23	23	25	27	339	821	1100	260	34	176
28	18	22	23	24	25	27	296	824	1000	230	33	175
29	18	22	23	24	---	27	262	790	993	223	31	175
30	18	22	23	24	---	27	241	730	1070	209	32	175
31	18	---	23	24	---	27	---	696	---	207	32	---
TOTAL	547	629	695	717	681	813	4930	19397	40157	28309	2305	4033
MEAN	17.6	21.0	22.4	23.1	24.3	26.2	164	626	1339	913	74.4	134
MAX	20	22	23	24	25	27	359	1080	1960	1540	212	181
MIN	17	18	22	23	24	25	33	218	760	207	31	31
AC-FT	1080	1250	1380	1420	1350	1610	9780	38470	79656	56150	4570	8000
CAL YR 1974	TOTAL	117695	MEAN 322	MAX 2210	MIN 17	AC-FT 233400						
WTR YR 1975	TOTAL	103213	MEAN 283	MAX 1960	MIN 17	AC-FT 204700						

BEAR RIVER BASIN

265. Bear River near Randolph, Utah

LOCATION.--Lat 41°48'02", long 111°04'20", in SE1/4 sec. 7, T.12 N., R.8 E., Rich County, on left bank 3.7 mi (6.0 km) upstream from Twin Creek, 5.0 mi (8.0 km) upstream from Utah-Wyoming State line, and 11 mi (18 km) northeast of Randolph.

DRAINAGE AREA.--1,616 mi² (4,185 km²).

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Prior to Aug. 17, 1971, 0.2 mi (0.3 km) upstream at different datum. Altitude of gage is 6,200 ft (1,889.8 m) from river-profile map.

AVERAGE DISCHARGE.--32 years, 206 ft³/s (5.85 m³/s) 149,600 acre-ft/yr (184 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,840 ft³/s (52.1 m³/s) June 22 (gage height, 7.17 ft or 2.185 m); minimum 37 ft³/s (1.05 m³/s) Oct. 7, 8.
 Period of record: Maximum discharge, 2,660 ft³/s (75.3 m³/s) May 8, 1952; maximum gage height, 8.99 ft (2.740 m) June 17, 1965, site and datum then in use; minimum discharge, 1.6 ft³/s (0.045 m³/s) Nov. 12, 1961.

REMARKS.--Records good except those for winter months, which are fair. Diversion for irrigation of about 94,500 acres (382 km²) above station. flow regulated by Woodruff Narrows Reservoir beginning January 1962 (see sta 10020200).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	93	74	65	65	70	88	313	208	808	351	73
2	43	92	65	65	65	75	84	295	206	763	333	62
3	43	90	66	65	65	75	82	284	230	693	312	63
4	41	87	67	65	65	80	87	281	279	736	289	64
5	40	85	65	65	65	80	90	271	401	828	260	48
6	39	81	65	65	65	85	102	326	521	919	238	49
7	38	87	65	65	65	85	106	411	566	1010	219	50
8	38	80	65	65	65	90	112	441	636	1100	198	49
9	39	83	65	65	65	90	116	429	733	1130	184	50
10	40	82	65	65	65	90	130	410	961	1090	164	49
11	39	81	65	65	65	90	138	409	1060	1090	150	44
12	38	76	65	65	65	90	136	420	1240	1090	142	78
13	43	75	65	65	65	90	137	442	1360	1060	136	95
14	51	85	65	65	64	90	147	466	1360	1010	130	110
15	51	82	65	65	65	90	153	473	1070	967	123	105
16	51	75	65	65	65	94	170	457	946	925	120	115
17	51	73	65	65	65	94	188	465	963	909	115	112
18	52	72	65	65	65	91	209	491	1150	913	106	112
19	51	70	65	65	65	92	229	497	1380	948	96	111
20	51	79	65	65	65	90	230	405	1580	896	100	143
21	53	70	65	65	65	90	232	409	1760	805	103	126
22	53	72	65	65	65	90	239	445	1830	767	98	122
23	57	73	65	65	65	93	253	489	1770	650	94	123
24	60	71	65	65	65	88	264	472	1700	557	91	116
25	59	74	65	65	65	87	291	409	1620	516	84	119
26	64	74	65	65	65	90	318	350	1390	489	81	140
27	70	74	65	65	65	90	353	310	1160	460	87	144
28	72	74	65	65	70	91	364	311	1040	461	86	144
29	76	74	65	65	---	91	355	286	897	414	82	143
30	86	74	65	65	---	83	333	268	842	395	81	133
31	92	---	65	65	---	92	---	199	---	373	77	---
TOTAL	1620	2358	2027	2015	1824	2716	5736	11934	30859	24792	4730	2892
MEAN	52.3	78.6	65.4	65.0	65.1	87.6	191	385	1029	800	153	96.4
MAX	92	93	74	65	70	94	364	497	1830	1130	351	144
MIN	38	70	65	65	64	70	82	199	206	373	77	44
AC-FT	3210	4680	4020	4000	3620	5390	11380	23670	61210	49170	9380	5740
CAL YR 1974	TOTAL	108265	MEAN 297	MAX 1570	MIN 14	AC-FT 214700						
WTR YR 1975	TOTAL	93503	MEAN 256	MAX 1830	MIN 38	AC-FT 165500						

BEAR RIVER BASIN

285. Bear River below Pixley Dam, near Cokeville, Wyo.

LOCATION.--Lat 41°56'20", long 110°59'05", in SE1/4 sec. 25, T.23 N., R120 W., Lincoln County, 800 ft (243 m) downstream from Pixley Dam, 11 mi (18 km) south of Cokeville, and 17.5 mi (28.2 km) downstream from Twin Creek.

DRAINAGE AREA.--2,032 mi² (5,263 km²).

PERIOD OF RECORD.--October 1941 to November 1943 (published as Bear River near Cokeville), October 1952 to September 1956, May 1958 to current year (irrigation seasons only). Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 6,185 ft (1,885.2 m) from river-profile map. Oct. 31, 1941 to Nov. 30, 1943, at site 200 ft (61 m) downstream at different datum.

EXTREMES.--Current season: Maximum discharge, 1,240 ft³/s (35.1 m³/s) June 26 (gage height, 8.08 ft or 2.463 m); minimum daily, 47 ft³/s (1.33 m³/s) Sept. 12.
 Period of record: Maximum daily discharge, 2,300 ft³/s (65.1 m³/s) Mar. 25, 1956; minimum daily recorded, 0.3 ft³/s (0.008 m³/s) Aug. 21, 1961.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								290	120	824	370	83
2								283	130	788	351	81
3								278	130	713	325	70
4								272	160	663	317	67
5								272	220	594	288	68
6								274	400	524	267	59
7								324	420	475	246	54
8								377	440	538	230	53
9								337	460	783	213	52
10								301	480	994	199	51
11								306	522	1040	174	51
12								320	537	1020	166	47
13								334	779	1010	163	66
14								346	1120	1040	159	100
15								355	1130	1030	155	114
16								346	1070	1000	136	112
17								334	953	990	117	118
18								327	948	988	122	116
19								336	1010	972	122	116
20								235	1080	982	108	128
21								220	1120	910	117	146
22								265	1180	822	120	134
23								289	1210	730	112	134
24								303	1220	608	103	129
25								293	1230	527	98	123
26								276	1240	497	91	134
27								240	1190	471	88	144
28								223	1100	461	92	155
29								208	992	441	91	156
30								179	866	407	88	153
31								153	---	390	87	---
TOTAL								8898	23477	23232	5315	3014
MEAN								287	783	749	171	100
MAX								377	1240	1040	370	156
MIN								153	120	390	87	47
AC-FT								17650	46570	46080	10540	5980

THE SEASON AC-FT 126820

BEAR RIVER BASIN

320. Smiths Fork near Border, Wyo.

LOCATION.--Lat 42°17'16", long 110°52'14", in NW¼ sec.33, T.27 N., R.118 W., Lincoln County, on left bank 4.5 mi (7.2 km) upstream from Howland Creek, 6 mi (10 km) downstream from Hobble Creek, and 12 mi (19 km) northeast of Border.

DRAINAGE AREA.--165 mi² (427 km²).

PERIOD OF RECORD.--May 1942 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,680 ft (2,036 m) from topographic map. Prior to Oct. 16, 1945, at site 0.8 mi (1.3 km) downstream at different datum.

AVERAGE DISCHARGE.--33 years, 198 ft³/s (5.607 m³/s) 143,500 acre ft/yr (177 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,080 ft³/s (30.6 m³/s) June 7 (gage height, 4.80 ft or 1.463 m); minimum, 21 ft³/s (0.59 m³/s) Mar. 29.
 Period of record: Maximum discharge, 1,610 ft³/s (45.6 m³/s) June 18, 1971 (gage height, 5.61 ft or 1.710 m); minimum 21 ft³/s (0.59 m³/s) Mar. 29, 1975.

REMARKS.--Records good except those for winter periods, which are fair. One diversion for irrigation of about 200 acres (809,000 m²) above station.

REVISIONS (WATER YEARS)--WSP 1734: 1952 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	86	72	60	60	55	48	72	757	922	290	143
2	92	81	72	60	60	54	47	81	783	930	280	137
3	91	79	72	60	60	54	51	100	852	936	272	156
4	94	80	72	60	60	52	51	128	841	922	266	156
5	89	75	73	60	60	52	50	123	852	927	260	156
6	88	77	71	60	60	53	52	116	959	923	254	155
7	87	75	71	60	60	54	52	107	1046	901	249	153
8	86	76	66	60	60	52	50	103	1010	873	245	150
9	86	78	66	60	60	52	50	106	925	857	240	148
10	86	75	66	60	60	52	49	124	815	803	236	149
11	86	74	66	60	59	50	48	181	710	769	234	151
12	85	74	66	60	60	51	49	228	700	723	231	145
13	84	77	66	70	62	49	52	225	774	673	230	142
14	83	73	66	70	60	51	55	316	909	629	226	141
15	83	74	66	70	60	47	56	420	990	588	225	137
16	81	70	76	70	60	52	55	529	1030	556	219	138
17	82	70	72	70	60	51	54	658	962	527	214	136
18	81	76	72	70	60	52	54	749	944	493	209	132
19	81	73	73	70	60	51	53	714	832	467	205	131
20	81	72	73	70	59	52	55	547	754	441	204	129
21	89	74	71	74	57	51	60	438	748	421	203	128
22	86	76	61	75	57	52	71	377	712	398	200	125
23	84	70	60	75	57	50	74	353	720	379	195	124
24	82	73	60	75	57	51	70	349	752	360	190	121
25	80	70	60	68	57	54	80	385	673	345	186	119
26	79	73	60	64	57	50	81	384	830	331	185	118
27	79	70	60	60	57	49	79	418	811	321	182	117
28	80	77	60	60	57	48	74	479	839	315	180	116
29	80	75	60	60	---	44	71	541	871	312	176	115
30	88	71	60	60	---	51	67	615	895	308	173	114
31	88	---	60	60	---	50	---	680	---	304	169	---
TOTAL	2633	2244	2069	2011	1665	1586	1758	10643	25490	18654	6830	4124
MEAN	84.9	74.8	66.7	64.9	59.5	51.2	55.6	343	850	602	220	137
MAX	94	86	76	75	65	55	81	749	1040	936	290	163
MIN	79	70	60	60	57	44	47	72	700	304	169	114
AC-FT	5220	4450	4100	3990	3300	3150	3490	21110	50560	37000	13550	8180
CAL YR 1974 TOTAL	83485		MEAN 229	MAX 1110	MIN 53	AC-FT 165600						
WTR YR 1975 TOTAL	79707		MEAN 218	MAX 1040	MIN 44	AC-FT 158100						

BEAR RIVER BASIN

395. Bear River at Border, Wyoming

LOCATION.--Lat 42°12'40", long 111°03'11", in NE1/4 sec. 15, T. 14 S., R. 46 E., Bear Lake County, Idaho, on left bank 0.2 mi (0.3 km) west of Wyoming-Idaho State line, 0.5 mi (0.8 km) west of Border, and 2.1 mi (3.4 km) upstream from Thomas Fork.

DRAINAGE AREA.--2,486 mi² (6,439 km²).

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,051.63 ft (1,844.537 m) above mean sea level, unadjusted.

AVERAGE DISCHARGE.--38 years, 429 ft³/s (12.16 m³/s) 311,100 acre-ft/yr (384 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,360 ft³/s (66.8 m³/s) June 19 (gage height, 7.42 ft or 2.262 m); minimum daily, 141 ft³/s (3.99 m³/s) Oct. 1.
 Period of record: Maximum discharge, 3,680 ft³/s (104 m³/s) May 11, 1952 (gage height, 8.89 ft or 2.710 m); minimum daily, 30 ft³/s (0.85 m³/s) Aug. 18-22, 1940.

REMARKS.--Records good except those for winter months, which are fair. Diversions for irrigation of about 122,000 acres (494 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	277	220	190	170	190	220	542	1110	2040	722	279
2	146	270	220	190	170	200	210	530	1140	1970	683	268
3	153	257	220	190	170	220	220	526	1150	1860	629	263
4	162	253	210	190	170	250	228	561	1210	1880	587	255
5	190	253	210	190	170	310	230	571	1180	1710	558	251
6	176	246	210	190	170	360	244	548	1200	1640	523	248
7	171	244	220	190	170	360	272	551	1320	1540	490	242
8	167	236	230	190	170	370	274	603	1570	1460	458	238
9	167	246	220	190	170	380	272	645	1650	1550	441	234
10	171	238	220	190	170	390	266	571	1680	1720	400	232
11	171	240	210	190	180	400	274	603	1670	1840	379	238
12	171	234	210	190	180	390	294	683	1640	1940	357	236
13	173	238	210	190	180	380	308	715	1620	1900	360	230
14	173	234	210	190	180	360	336	758	1780	1860	348	234
15	178	238	220	190	170	330	345	880	2000	1840	357	259
16	184	240	237	190	170	310	364	1040	2080	1800	343	263
17	184	228	220	190	170	300	379	1150	2170	1720	331	268
18	184	228	210	190	170	285	390	1260	2310	1660	319	272
19	184	230	210	180	170	285	397	1350	2360	1600	310	277
20	186	207	200	180	170	310	467	1420	2300	1540	301	274
21	188	203	200	180	160	331	478	1210	2220	1500	294	292
22	193	221	200	180	160	333	493	1120	2200	1420	303	301
23	201	220	190	180	160	294	533	1060	2180	1330	305	292
24	205	222	190	180	160	279	548	1020	2180	1200	294	285
25	201	212	190	180	160	283	567	992	2220	1010	294	283
26	203	214	190	170	160	266	593	968	2270	908	292	277
27	203	200	190	170	170	240	596	944	2290	856	281	285
28	207	210	190	170	180	230	596	928	2250	809	310	299
29	220	220	190	170	---	220	571	998	2230	816	308	305
30	244	220	190	170	---	240	558	1020	2130	787	299	296
31	266	---	190	170	---	230	---	1060	---	747	283	---
TOTAL	5763	6979	6427	5700	4750	9326	11523	26827	55320	46393	12159	7976
MEAN	186	233	207	184	170	301	384	865	1844	1497	392	266
MAX	266	277	237	190	180	400	596	1420	2360	2040	722	305
MIN	141	200	190	170	160	190	210	526	1110	747	261	230
AC-FT	11430	13840	12750	11310	9420	18500	22860	53210	109700	92020	24120	15820

CAL YR 1974 TOTAL 215009 MEAN 589 MAX 2040 MIN 130 AC-FT 426500
 WTR YR 1975 TOTAL 199143 MEAN 546 MAX 2360 MIN 141 AC-FT 395500

BEAR RIVER BASIN

460. Rainbow inlet canal near Dingle, Idaho

LOCATION.--Lat 42°13'48", long 111°17'43", in SE¼ sec.3, T.14 S., R.44 E., Bear Lake County, on left bank 1.5 mi (2.4 km) west of Dingle and 1.8 mi (2.9 km) downstream from headworks at Stewart Dam.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only prior to October 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Elevation of gage datum is 5,922.0 ft (1,805.03 m) above mean sea level (by topographic survey). Prior to Oct. 1, 1923, at site 308 ft (91 m) downstream at different datum; Oct. 1, 1923 to Oct. 27, 1944, at site 0.5 mi (0.8 km) downstream at different datum.

AVERAGE DISCHARGE.--53 years, 341 ft³/s (9.56 m³/s) 247,100 acre ft/yr (305 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,280 ft³/s (64.6 m³/s) June 21 (gage height, 6.40 ft or 1.951 m); minimum, 73 ft³/s (2.07 m³/s) Oct. 1.
 Period of record: Maximum discharge, 4,180 ft³/s (118 m³/s) May 7, 1952 (gage height, 8.62 ft or 2.627 m); minimum daily, 1 ft³/s (0.028 m³/s) on several days in 1931, 1934, 1940, 1948.

REMARKS.--Records good. Discharge measurements generally made three to five times a week. Canal diverts from Bear River at Stewart Dam in NE¼ sec.34, T.13 S., R.44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at the station and by seepage and wastage from irrigation lands on both sides of canal.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	301	185	115	113	157	254	636	1000	1990	747	256
2	80	307	187	109	124	170	233	627	1030	1880	736	256
3	96	308	194	115	132	180	226	637	1070	1740	680	252
4	109	299	205	111	137	193	238	642	1000	1620	603	246
5	111	286	204	116	143	193	257	666	1070	1520	608	240
6	154	281	202	121	146	225	277	643	1050	1450	599	239
7	161	276	186	113	132	276	289	547	1050	1380	561	237
8	135	272	180	115	128	338	297	549	1150	1320	519	221
9	141	268	168	108	133	370	296	593	1310	1230	488	188
10	138	283	127	125	147	402	309	638	1470	1310	441	176
11	143	282	132	128	143	334	281	602	1550	1420	405	174
12	145	274	162	129	151	375	294	626	1550	1570	382	176
13	142	265	183	121	140	381	320	718	1490	1760	376	174
14	140	265	162	111	129	373	349	742	1450	1820	345	170
15	141	267	173	112	130	296	386	811	1570	1810	334	171
16	154	268	161	123	137	306	407	964	1720	1780	322	175
17	156	268	175	128	145	352	440	1100	1790	1710	305	173
18	170	268	164	133	161	323	461	1230	1940	1660	315	173
19	180	250	151	141	139	321	450	1350	2090	1570	313	169
20	181	233	165	144	144	349	487	1450	2170	1530	287	174
21	199	208	147	130	154	408	571	1460	2260	1510	272	190
22	194	221	133	125	144	386	571	1360	2210	1440	256	208
23	202	239	130	120	139	375	623	1200	2130	1340	272	220
24	214	237	120	136	152	339	686	1170	2200	1240	265	218
25	223	235	103	138	152	316	683	1110	2140	1140	262	208
26	223	230	107	143	156	300	729	1080	2150	978	263	203
27	224	198	116	152	148	293	736	1030	2130	890	271	203
28	227	166	118	138	149	289	725	968	2110	817	268	207
29	234	168	122	128	---	281	696	959	2090	806	286	217
30	255	192	135	125	---	282	668	993	2070	600	286	225
31	282	---	134	121	---	269	---	1010	---	783	281	---
TOTAL	5238	7615	4831	3874	3948	9452	13239	28111	50010	43814	12349	6141
MEAN	169	254	156	125	141	305	441	907	1667	1413	398	205
MAX	282	308	205	152	161	408	736	1460	2260	1990	747	256
MIN	76	166	103	108	113	157	226	547	1000	783	256	169
AC-FT	10390	15100	9580	7680	7830	18750	26260	55760	99190	86910	24490	12180
CAL YR 1974	TOTAL	196480	MEAN 538	MAX 2140	MIN 26	AC-FT 389700						
WTR YR 1975	TOTAL	188622	MEAN 517	MAX 2260	MIN 76	AC-FT 374100						

BEAR RIVER BASIN

465. Bear River below Stewart Dam, near Montpelier, Idaho

LOCATION.--Lat 42°15'14", long 111°17'35", in NE¼ sec.34, T.13 S., R.44 E., Bear Lake County, on right bank 300 ft (91 m) downstream from Stewart Dam and 4.5 mi (7.2 km) south of Montpelier.

DRAINAGE AREA.--2,853 mi² (7,389 km²).

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 5,950 ft (1,814 m) from topographic map.

AVERAGE DISCHARGE.--53 years, 48.4 ft³/s (1.372 m³/s) 35,106 acre ft/yr (43.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 12 ft³/s (0.34 m³/s) Oct. 7 (gage height, 1.09 ft or 0.332 m); minimum, 3.1 ft³/s (0.088 m³/s) Mar. 1.
Period of record: Maximum daily discharge, 3,050 ft³/s (86.4 m³/s) June 3, 1923; no flow July 15, 1956.

REMARKS.--Records good. Discharge measurements generally made once a week. Water diverted at Stewart Dam through Rainbow inlet canal (see station 10046000) for storage and regulation in Bear Lake. Many diversions above station for irrigation.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	8.6	6.9	4.5	4.5	3.4	7.8	5.0	7.6	10	7.6	7.1
2	8.9	8.6	6.6	4.3	4.4	3.8	7.8	4.9	7.3	10	7.8	7.2
3	9.5	8.7	6.2	4.4	4.4	4.8	7.7	5.0	6.3	9.0	7.4	7.1
4	10	9.6	6.4	4.5	4.5	5.2	7.1	5.0	5.9	9.5	7.1	7.1
5	11	9.3	6.5	4.7	4.4	5.3	6.8	5.1	6.6	8.6	7.5	7.0
6	11	9.0	6.5	4.8	4.4	5.8	6.8	5.1	7.0	8.2	7.6	7.0
7	11	8.8	6.6	4.7	4.4	7.0	6.7	5.3	7.5	7.5	7.3	7.0
8	11	8.6	6.4	4.8	4.5	7.8	6.4	5.4	8.7	7.2	7.1	6.8
9	10	8.4	6.1	4.7	4.7	8.2	6.3	5.9	9.9	7.5	6.8	6.3
10	10	8.3	5.7	4.6	4.3	8.6	6.2	6.5	9.7	8.3	6.5	6.3
11	10	8.2	5.6	4.5	4.2	7.7	6.0	6.3	9.9	8.9	6.2	6.1
12	9.9	8.0	6.1	4.4	4.4	7.8	5.8	6.4	10	9.8	6.1	5.9
13	10	7.9	6.2	4.1	4.4	8.2	5.9	7.0	11	10	6.2	5.7
14	10	8.2	6.1	4.0	4.0	8.3	6.1	7.5	11	11	6.0	5.6
15	10	8.3	5.9	4.1	4.1	8.1	6.2	7.9	11	11	6.2	5.6
16	10	8.1	6.1	3.9	4.2	8.2	6.1	8.1	11	10	6.7	5.6
17	11	7.8	6.6	4.0	4.3	8.2	5.8	8.2	11	9.5	6.8	5.8
18	11	7.6	6.6	4.0	4.4	8.0	5.4	8.3	11	8.6	6.5	5.9
19	11	8.2	6.5	4.1	4.0	8.3	5.5	6.8	11	8.3	5.6	6.0
20	10	7.3	6.8	4.3	3.9	8.6	5.6	5.4	11	8.3	5.3	6.1
21	9.8	7.6	7.1	4.4	3.9	8.7	6.1	5.4	10	8.1	5.7	6.2
22	9.2	8.1	6.6	4.4	3.8	8.7	5.5	4.7	9.7	7.8	6.1	6.3
23	9.4	8.0	5.6	4.6	3.8	8.5	5.6	4.7	9.2	7.5	6.6	5.8
24	9.6	8.0	4.9	4.6	3.7	8.4	5.5	5.0	8.5	7.3	6.9	6.0
25	9.3	7.9	4.4	4.5	4.2	8.7	5.4	5.5	8.8	6.9	7.1	6.2
26	9.5	7.6	4.4	4.5	3.4	8.3	5.7	6.0	9.2	6.3	7.1	6.2
27	9.6	7.3	4.4	4.5	3.9	8.3	5.5	6.7	9.5	5.8	7.0	6.1
28	9.7	7.0	4.4	4.6	3.9	7.8	5.3	6.6	9.8	5.7	7.1	6.2
29	9.6	7.1	4.5	4.5	---	7.6	4.9	6.8	10	6.5	7.1	6.5
30	8.5	7.3	4.6	4.5	---	7.8	4.9	7.4	10	7.0	7.1	6.5
31	8.6	---	4.8	4.5	---	7.8	---	7.6	---	7.2	7.1	---
TOTAL	306.7	243.4	182.1	137.0	117.0	231.9	182.4	191.5	279.1	257.3	209.4	189.2
MEAN	9.89	8.11	5.87	4.42	4.18	7.48	6.08	6.18	9.30	8.30	6.75	6.31
MAX	11	9.6	7.1	4.8	4.7	8.7	7.8	8.3	11	11	7.8	7.2
MIN	8.5	7.0	4.4	3.9	3.4	3.4	4.9	4.7	5.9	5.7	5.3	5.6
AC-FT	608	483	361	272	232	460	362	380	554	510	415	375
CAL YR 1974 TOTAL	2943.7											
WTR YR 1975 TOTAL	2527.0											
MEAN 8.06												
MAX 18												
MIN 3.0												
AC-FT 5840												
MEAN 6.92												
MAX 11												
MIN 3.4												
AC-FT 5010												

BEAR RIVER BASIN

555. Bear Lake at Lifton, near St. Charles, Idaho

LOCATION.--Lat 42°07'16", long 111°18'52", in NE¼ sec. 16, T.15 S., R.44 E., Bear Lake County, in Lifton pumping plant of Utah Power & Light Company, 3.5 mi (5.6 km) east of St. Charles.

DRAINAGE AREA.--435 mi² (1,127 km²), approximately (does not include Mud Lake drainage).

PERIOD OF RECORD.--October 1903 to June 1906 (elevations only), January 1921 to current year. Monthly contents only January 1921 to September 1945 published in WSP 1314. Published as Bear Lake at Fish Haven 1903-06.

GAGE.--Water-stage recorder. Datum of gage is 5,900 ft (1,798.3 m) above mean sea level, unadjusted (Utah Power & Light Company datum).

EXTREMES.--Current year: Maximum contents, 1,356,000 acre-ft (1.66 km³) July 25 (elevation, 5,922.64 ft or 1,805.721 m); minimum, 1,067,000 acre-ft (1.32 km³) Feb. 3 (elevation, 5,918.60 ft or 1,803.989 m).
Period of record: Maximum contents, 1,423,000 acre-ft (1.75 km³) June 10, 1923 (elevation, 5,923.68 ft or 1,805.538 m); no usable contents Nov. 9-19, 1935 (elevation, 5,902.00 ft or 1,798.930 m lower limit of pumps).

REMARKS.--Outflow regulated by gates and pumps at the north end of Bear Lake and by gates in dike at north end of Mud Lake, a shallow interconnected lake. Principal inflow to Bear Lake is from Bear River through Rainbow inlet (station 10046000) and Dingle inlet canals, man-made diversions into Mud Lake from which flow can empty into Bear Lake either through the pumping plant or through an opening in the dividing causeway, or the flow can be routed directly into the Outlet canal. (See station 10059500.) Capacity of Bear Lake is 1,421,000 acre-ft (1.75 km³) between elevation 5,902.00 ft or 1,798.930 m (lower limit of pumps) and 5,923.65 ft or 1,805.529 m (present upper limit of storage with existing facilities). Storage water used for irrigation and power development. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Utah Power & Light Company, under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

5,918.50	1,060,400	5,921.50	1,269,900
5,919.00	1,095,200	5,922.00	1,305,000
5,919.50	1,130,000	5,922.50	1,340,100
5,920.00	1,164,900	5,923.00	1,375,400
5,920.50	1,199,900	5,923.40	1,403,600
5,921.00	1,234,900		

USABLE CONTENTS, IN THOUSANDS OF ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1106	1109	1119	1093	1069	1088	1110	1137	1196	1320	1347	1286
2	1105	1111	1119	1086	1068	1088	1110	1139	1198	1322	1347	1283
3	1104	1112	1118	1084	1067	1089	1110	1143	1200	1325	1347	1280
4	1104	1113	1118	1083	1067	1090	1111	1145	1201	1328	1347	1277
5	1103	1113	1117	1081	1067	1090	1111	1148	1203	1330	1346	1276
6	1102	1113	1116	1081	1067	1092	1111	1150	1204	1332	1345	1274
7	1102	1114	1115	1081	1068	1093	1111	1151	1206	1333	1344	1272
8	1101	1115	1115	1081	1068	1095	1112	1152	1209	1336	1342	1271
9	1100	1115	1113	1080	1069	1096	1112	1153	1212	1337	1342	1269
10	1099	1115	1112	1080	1070	1097	1113	1154	1217	1337	1340	1267
11	1099	1115	1111	1079	1070	1097	1113	1155	1222	1338	1340	1266
12	1098	1115	1109	1079	1071	1097	1113	1155	1229	1340	1340	1264
13	1097	1115	1108	1079	1072	1098	1113	1156	1236	1340	1339	1262
14	1097	1115	1106	1079	1073	1098	1113	1157	1242	1342	1339	1259
15	1097	1115	1105	1078	1074	1099	1114	1157	1247	1343	1338	1257
16	1097	1115	1104	1077	1075	1099	1115	1159	1251	1344	1337	1255
17	1097	1116	1102	1076	1076	1099	1115	1161	1256	1345	1336	1253
18	1097	1118	1101	1075	1077	1100	1116	1162	1265	1346	1334	1251
19	1097	1118	1099	1074	1079	1100	1118	1164	1272	1347	1331	1250
20	1098	1118	1098	1074	1079	1101	1118	1167	1281	1346	1328	1248
21	1099	1118	1097	1073	1081	1102	1120	1170	1288	1349	1324	1245
22	1099	1119	1097	1072	1081	1102	1120	1174	1292	1349	1321	1243
23	1101	1120	1097	1071	1083	1103	1122	1178	1295	1349	1317	1239
24	1102	1120	1096	1071	1083	1104	1123	1182	1299	1349	1313	1236
25	1102	1120	1095	1070	1085	1105	1125	1184	1302	1350	1309	1233
26	1102	1120	1095	1070	1086	1106	1126	1185	1306	1350	1305	1229
27	1102	1120	1093	1070	1086	1107	1128	1187	1309	1350	1302	1226
28	1102	1120	1092	1070	1087	1108	1130	1189	1311	1349	1298	1223
29	1102	1120	1090	1070	---	1109	1132	1190	1314	1349	1295	1220
30	1104	1120	1089	1070	---	1110	1134	1192	1317	1349	1292	1217
31	1108	---	1088	1069	---	1110	---	1194	---	1349	1289	---
MAX	1108	1120	1119	1093	1087	1110	1134	1194	1317	1350	1347	1286
MIN	1097	1109	1088	1069	1067	1088	1110	1137	1196	1320	1289	1217
{-}	5919.18	5919.35	5918.89	5918.62	5918.88	5919.21	5919.56	5920.41	5922.17	5922.62	5921.77	5920.75
{+}	+2.0	+12.0	-32.0	-19.0	+18.0	+23.0	+24.0	+60.0	+123.0	+32.0	-60.0	-72.0
CAL YR 1974.....	≠ -22.0											
WTR YR 1975.....	≠ +111.0											

+ Elevation, in feet, at end of month.

+ Change in contents, in thousands of acre-feet.

BEAR RIVER BASIN

595. Bear Lake outlet canal near Paris, Idaho

LOCATION.--Lat 42°13'00", long 111°20'35", in SW¼ sec.8, T.14 S., R.44 E., Bear Lake County, on right bank 2,000 ft (610 m) downstream from headgates (at dike) and 3 mi (5 km) southeast of Paris.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Elevation of gage datum is 5,912.6 ft (1,802.16 m) above mean sea level (from topographic survey).

AVERAGE DISCHARGE.--53 years, 399 ft³/s (11.30 m³/s) 267,400 acre ft/yr (330 km³/yr).

EXTREMES.--Current year: Maximum discharge, 1,370 ft³/s (38.9 m³/s) Aug. 23 (gage height, 18.47 ft or 5.630 m); minimum daily, 4.1 ft³/s (0.12 m³/s) Oct. 3, 4.
 Period of record: Maximum daily discharge, 1,870 ft³/s (53.0 m³/s) Aug. 8, 1924; minimum daily, 1 ft³/s (0.28 m³/s) for many days in 1937, 1954, 1959, 1961, 1964.

REMARKS.--Records good. Discharge measurements generally made five or six times a week during periods of release from Bear Lake.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.3	392	523	357	5.0	5.0	5.0	5.0	533	1200	1310
2	4.2	4.3	382	525	429	5.0	5.0	5.0	5.0	719	1240	1320
3	4.1	4.3	402	538	366	5.0	5.0	5.0	5.0	708	1210	1300
4	4.1	4.3	416	549	294	5.0	5.0	5.0	5.0	710	1160	1300
5	4.2	4.3	419	560	319	5.0	5.0	5.0	5.0	713	1090	1180
6	4.2	4.3	434	571	5.0	5.0	5.0	5.0	5.0	699	1040	1020
7	4.2	4.3	457	543	5.0	5.0	5.0	5.0	5.0	716	1020	1010
8	4.2	4.3	527	540	5.0	5.0	5.0	5.0	5.0	789	1070	1010
9	4.2	4.3	598	553	5.0	5.0	5.0	89	5.0	972	1110	1010
10	4.2	4.3	633	559	5.0	5.0	5.0	265	5.0	825	1070	1000
11	4.2	4.3	633	544	5.0	5.0	5.0	275	5.0	799	1170	1010
12	4.2	4.3	645	549	5.0	5.0	5.0	269	5.0	803	1260	1020
13	4.2	4.3	655	553	5.0	5.0	5.0	262	5.0	817	1220	995
14	4.2	4.3	653	532	5.0	5.0	5.0	266	5.0	824	1220	994
15	4.2	4.3	655	542	5.0	5.0	5.0	277	5.0	829	1320	810
16	4.2	4.3	652	545	5.0	5.0	5.0	268	5.0	844	1300	567
17	4.2	4.3	656	536	5.0	5.0	5.0	278	5.0	966	1330	557
18	4.2	4.3	661	557	5.0	5.0	5.0	269	5.0	963	1330	566
19	4.2	4.3	663	566	5.0	5.0	5.0	269	5.0	961	1320	580
20	4.2	4.3	663	561	5.0	5.0	5.0	272	192	953	1350	597
21	4.2	4.4	657	533	5.0	5.0	5.0	273	388	945	1350	615
22	4.2	4.4	553	533	5.0	5.0	5.0	271	362	901	1360	633
23	4.2	4.4	584	535	5.0	5.0	5.0	261	358	1076	1370	1130
24	4.2	4.4	548	537	5.0	5.0	5.0	253	371	1090	1360	1250
25	4.2	4.4	508	566	5.0	5.0	5.0	237	412	1130	1330	1270
26	4.2	204	487	549	5.0	5.0	5.0	247	435	1210	1340	1290
27	4.2	501	482	550	5.0	5.0	5.0	258	422	1200	1340	1260
28	4.3	499	499	482	5.0	5.0	5.0	259	425	1180	1340	1260
29	4.3	460	513	350	---	5.0	5.0	253	434	1210	1350	1280
30	4.3	384	530	250	---	5.0	5.0	166	451	1210	1310	1300
31	4.3	---	540	308	---	5.0	---	9.7	---	1200	1310	---
TOTAL	130.4	2156.0	17097	16139	1880.0	155.0	150.0	5586.7	4345.0	28569	38790	30644
MEAN	4.21	71.9	552	521	67.1	5.00	5.00	180	145	922	1251	1021
MAX	4.3	501	663	571	429	5.0	5.0	278	451	1210	1370	1320
MIN	4.1	4.3	382	250	5.0	5.0	5.0	5.0	5.0	533	1020	557
AC-FT	259	4280	33910	32010	3730	307	298	11080	8620	56670	76940	60780
CAL YR 1974 TOTAL	212822.4		MEAN 583	MAX 1390	MIN 4.1	AC-FT 422100						
WTR YR 1975 TOTAL	145642.1		MEAN 399	MAX 1370	MIN 4.1	AC-FT 288900						

BEAR RIVER BASIN

927. Bear River at Idaho—Utah State Line

LOCATION.--Lat 42°00'47", long 111°55'14", in NW¼NE¼ sec.29, T.16 S., R.39 E., Franklin County, Idaho, on left bank 1,050 ft (320 m) downstream from inlet canal to Cub River pumps, 1.1 mi (1.8 km) downstream from Weston Creek, 1.8 mi (2.9 km) upstream from State line, and 3.5 mi (5.6 km) southeast of Weston.

DRAINAGE AREA.--4,681 mi² (12,642 km²).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft (1,347 m) from topographic map.

AVERAGE DISCHARGE.--5 years, 1452 ft³/s (41.1 m³/s) 1,052,000 acre ft/yr (1.30 km³/yr).

EXTREMES.--Current year: Maximum discharge, 3,070 ft³/s (86.9 m³/s) May 18 (gage height, 6.60 ft or 2.012 m); minimum daily, 179 ft³/s (5.07 m³/s) Oct. 29, Nov. 9.
 Period of record: Maximum discharge, 4,190 ft³/s (119 m³/s) June 12 (gage height, 8.25 ft or 2.515 m); minimum daily, 73 ft³/s (2.07 m³/s) Nov. 20, 1970.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	582	228	765	800	1100	601	844	1400	1720	1500	1240	1420
2	523	816	861	1200	1200	586	1040	1716	1930	976	1140	1460
3	681	1000	1000	3000	1200	484	733	1930	1860	1220	1090	1300
4	619	890	866	2500	1100	845	643	1580	2000	1260	1070	1340
5	719	767	755	2000	1000	808	691	1890	1560	653	1220	1680
6	649	239	895	1500	900	971	1040	1380	1420	976	914	1080
7	715	196	912	1300	1200	1080	967	1770	1720	1140	942	1170
8	686	186	1190	1200	900	933	787	1390	764	1090	1050	1460
9	761	179	1100	1400	700	908	851	1620	1710	982	1400	1230
10	724	911	1200	1200	800	926	792	1370	1150	1460	806	918
11	639	970	1100	1100	700	896	808	1330	1300	928	1320	1470
12	952	775	1500	1000	600	757	839	1780	1500	1270	631	1060
13	587	232	1100	1200	700	932	807	1840	1230	1330	876	1340
14	688	185	1200	1400	1000	763	887	1800	1290	1150	1110	1290
15	707	268	1300	1000	800	1010	954	1820	1030	981	867	1690
16	405	248	1100	1500	600	695	1160	2690	1120	1220	1200	1150
17	859	297	1200	1300	500	971	1190	2070	777	1270	698	1700
18	806	248	1300	1200	400	616	1210	2240	1300	956	1100	833
19	527	733	1400	1300	800	955	1040	2280	1240	1110	1080	1280
20	1070	635	1300	1300	900	712	1220	2220	1620	829	1320	1220
21	968	399	1200	1200	800	883	1120	2160	1200	1240	829	1350
22	1280	578	1200	1300	544	858	1260	2180	1660	828	1250	1180
23	2380	710	1400	1200	777	871	1310	2340	1790	1100	1170	1480
24	336	463	1200	1200	330	766	1250	1680	1680	1130	1280	1380
25	216	750	1300	1300	535	1150	1610	1890	1940	837	1480	1190
26	196	751	800	1200	748	1320	1690	1780	1500	930	1460	943
27	189	881	1000	1500	797	1010	1840	2090	1680	922	1200	811
28	184	706	1100	1200	706	801	1490	1710	1650	1370	1160	1490
29	179	967	1400	1200	---	950	1310	1720	2190	680	1410	1590
30	215	998	1100	1300	---	679	1090	1420	1370	1020	1530	1550
31	250	---	1200	1100	---	679	---	1920	---	1050	1360	---
TOTAL	20292	17206	34944	42100	22337	26416	32493	57000	44921	33410	35225	39055
MEAN	655	574	1127	1356	798	852	1083	1839	1497	1078	1136	1302
MAX	2380	1000	1500	3000	1200	1320	1840	2690	2190	1500	1530	1700
MIN	179	179	755	800	330	484	643	1330	764	653	631	811
AC-FT	40250	34130	69310	83510	44310	52400	64450	113100	89100	66270	69870	77470

CAL YR 1974 TOTAL 453791 MEAN 1243 MAX 2380 MIN 179 AC-FT 900100
 WTR YR 1975 TOTAL 405399 MEAN 1111 MAX 3000 MIN 179 AC-FT 804100

NOTE.--No gage-height record Dec. 8 to Feb. 21.

BEAR RIVER BASIN

930. Cub River near Preston, Idaho

LOCATION.--Lat 42°08'28", long 111°41'19", in SW¼ sec.5, T.15 S., R.41 E., Franklin County, Cache National Forest, on right bank 0.2 mi (0.3 km) upstream from headgates of Cub River-Worm Creek Canal, 6.7 mi (1.1 km) upstream from forest boundary, and 10 mi (16 km) east of Preston.

DRAINAGE AREA.--31.6 mi² (81.8 km²).

PERIOD OF RECORD.--March 1940 to September 1952, October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,285.1 ft (1,610.90 m) above mean sea level, unadjusted.

AVERAGE DISCHARGE.--32 years, 85.0 ft³/s (2.41 m³/s) 61,590 acre-ft/yr (75.9 km³/yr).

EXTREMES.--Current year: Maximum discharge, 753 ft³/s (21.3 m³/s) June 16 (gage height, 2.91 ft or 0.887 m); minimum, 16 ft³/s (0.45 m³/s) Feb. 6, 20, 23-27;
 Period of record: Maximum discharge, 803 ft³/s (22.7 m³/s) June 11, 1971 (gage height, 3.13 ft or 0.954 m); maximum gage height, 3.83 ft (1.167 m) June 2, 1943; no flow for part of Jan. 29, 1965, result of snowslide.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No diversion above station.

REVISIONS.--WRD Utah 1974: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1		31	28	21	18	17	17	18	34	405	480	106	55
2		31	26	21	18	17	18	18	39	458	484	102	54
3		31	26	21	18	17	20	18	57	467	493	100	53
4		31	25	21	18	17	21	18	80	475	493	96	52
5		31	25	21	18	17	22	18	67	471	484	94	51
6		30	25	20	18	16	24	19	58	525	475	90	50
7		30	25	21	18	16	25	19	54	616	467	88	49
8		29	25	20	19	16	25	19	56	625	445	85	48
9		29	25	20	18	17	26	18	56	608	441	82	47
10		29	24	19	18	17	25	18	63	475	421	81	49
11		28	24	19	18	16	25	19	89	409	379	80	47
12		28	24	19	18	16	24	21	114	429	340	78	47
13		28	23	21	18	17	24	27	98	530	303	77	46
14		28	23	20	17	17	24	32	121	637	280	76	45
15		28	23	19	17	17	25	32	170	711	256	75	44
16		28	23	19	17	17	25	35	231	729	241	73	43
17		28	23	19	17	16	24	34	287	681	222	72	43
18		27	24	19	17	16	23	31	315	630	206	71	42
19		27	23	19	17	16	23	30	319	545	194	70	42
20		27	23	20	17	17	27	32	280	433	184	69	41
21		28	22	19	17	16	28	41	236	390	172	67	40
22		27	23	19	17	16	27	55	189	433	163	66	39
23		27	22	19	17	16	25	58	168	480	155	65	39
24		26	22	19	18	16	23	53	161	502	146	64	38
25		26	22	19	20	16	25	60	182	535	140	63	38
26		25	22	19	18	16	23	54	186	493	132	60	38
27		25	21	19	18	16	21	48	194	450	127	59	38
28		26	21	19	18	17	21	41	209	467	123	58	37
29		27	21	19	18	---	21	38	231	471	119	58	37
30		28	21	19	17	---	19	35	268	484	116	57	36
31		28	---	19	17	---	19	---	332	---	112	56	---
TOTAL	872	704	608	549	461	719	959	4944	15556	8793	2338	1328	
MEAN	28.1	23.5	19.6	17.7	16.5	23.2	32.0	159	519	284	75.4	44.3	
MAX	31	28	21	20	17	20	60	332	729	493	106	55	
MIN	25	21	19	17	16	17	18	34	390	112	56	36	
AC-FT	1730	1400	1210	1090	914	1430	1900	9810	30860	17440	4640	2630	
CAL YR 1974 TOTAL	35996			98.6	MAX 637	MIN 19	AC-FT 71400						
WTR YR 1975 TOTAL	37831			MEAN 104	MAX 729	MIN 16	AC-FT 75040						

BEAR RIVER BASIN

1090. Logan River above State dam, near Logan, Utah

LOCATION.--Lat 41°44'40", long 111°47'00", in NE1/4 sec.36, T.12 N., R.1 E., Cache County, on right bank at Logan plant of Utah Power & Light Co. (abandoned), 0.5 mi (0.8 km) upstream from State dam, and 2.5 mi (4.0 km) east of Logan.

DRAINAGE AREA.--214 mi² (554 km²).

PERIOD OF RECORD.--June 1896 to current year. Published as Logan River near Logan prior to 1913. Records since May 1913 equivalent to earlier records if records for Utah Power & Light Co.'s tailrace near Logan are added. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,680 ft (1,426 m) from topographic map. Prior to May 7, 1913, nonrecording gage at various sites within 0.5 mi (0.8 km) downstream, below confluence of tailrace, at different datums. May 7 to Sept. 30, 1913, water-stage recorder at present site at different datums and Oct. 1, 1913 to Sept. 3, 1938, at datum about 2.3 ft (0.70 m) lower than present datum.

AVERAGE DISCHARGE.--62 years (1913-75), 120 ft³/s (3.40 m³/s) 87,060 acre-ft/yr (107 hm³/yr). Average combined discharge of Logan River above State dam and Logan, Hyde Park & Smithfield Canal, 79 years (1896-1975), 275 ft³/s (7.788 m³/s) 199,200 acre-ft/yr (246 hm³/yr). See REMARKS.

EXTREMES (River only).--Current year; Maximum discharge, 1,260 ft³/s (35.7 m³/s) June 16 (gage height, 5.36 ft or 1.634 m); minimum daily, 88 ft³/s (2.49 m³/s) Feb. 22.
 Period of record; Maximum discharge, 2,000 ft³/s (56.6 m³/s) Mar. 21, 1916, gage height, 5.6 ft or 1.71 m, datum then in use, from rating curve extended above 1,000 ft³/s (28.3 m³/s); minimum daily, 6 ft³/s (0.17 m³/s) Nov. 7, 1940.

(Combined flow, Logan River above State dam and Logan, Hyde Park & Smithfield Canal).--Current year; Maximum discharge, 1,350 ft³/s (38.2 m³/s) June 16; minimum daily, 90 ft³/s (2.55 m³/s) Feb. 22.
 Period of record; Maximum observed discharge, 2,480 ft³/s (70.2 m³/s) May 24, 1907; minimum daily, 50 ft³/s (1.42 m³/s) Jan. 21, 1935.

REMARKS.--Records good. Water diverted from river and springs above station for power, irrigation, and municipal supply. Flow regulated by Logan City powerplant above station. For records of combined flow of Logan River and Logan, Hyde Park & Smithfield Canal, see following page. Combined flow record excludes that in Logan City culinary pipe lines. During 1963 site of gaging station for Logan, Hyde Park & Smithfield Canal was changed; records of combined flow since that time are equivalent to previous records. Utah Power and Light Co. stopped diverting water from river November 1970 at which time the tailrace station was discontinued.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	152	120	96	104	104	109	147	802	890	332	177
2	167	143	126	102	102	104	112	163	855	890	318	177
3	167	143	120	102	102	105	111	210	890	910	308	172
4	167	141	121	102	101	105	112	276	935	915	298	172
5	172	139	121	102	102	105	112	244	920	920	291	167
6	174	139	120	104	97	112	114	227	984	905	281	165
7	174	137	120	104	102	116	116	215	1120	890	278	165
8	172	137	118	104	99	111	111	199	1120	875	281	163
9	169	137	111	104	102	112	114	207	1060	855	275	160
10	165	135	112	104	104	112	109	269	920	826	269	163
11	163	133	112	104	101	111	111	361	826	797	259	172
12	163	133	116	105	97	109	109	407	841	778	253	169
13	158	133	120	105	104	107	112	368	930	735	256	169
14	154	133	114	105	105	107	118	473	1060	697	244	165
15	147	133	114	105	104	105	120	580	1140	665	244	165
16	154	133	116	107	104	105	125	678	1180	642	238	163
17	154	133	116	105	101	107	127	730	1120	611	230	160
18	160	137	111	105	99	104	127	778	1100	567	227	158
19	158	135	114	105	101	107	123	792	950	541	215	156
20	154	129	114	104	104	115	121	740	855	524	213	154
21	152	131	118	104	97	121	127	606	802	486	210	152
22	145	131	114	97	88	121	139	511	797	461	202	163
23	143	131	105	102	96	116	165	465	831	448	204	167
24	143	129	101	107	97	114	169	444	876	427	196	165
25	141	129	109	118	101	111	181	511	920	407	194	165
26	141	127	109	112	101	102	181	494	870	387	194	165
27	141	127	102	104	101	105	179	511	841	372	191	163
28	143	125	105	104	102	109	167	541	855	364	189	165
29	145	123	107	96	---	102	154	554	860	357	184	169
30	156	120	97	94	---	112	147	628	870	346	184	167
31	158	---	101	102	---	112	---	725	---	342	179	---
TOTAL	4863	4008	3498	3214	2818	3388	3922	14056	28124	19830	7437	4953
MEAN	157	134	113	104	101	109	131	453	937	640	240	165
MAX	174	152	121	118	105	121	181	792	1180	920	332	177
MIN	141	120	97	94	88	102	109	147	797	342	179	152
AC-FT	9650	7950	6940	6370	5590	6720	7780	27880	55780	39330	14750	9820
CAL YR 1974 TOTAL	103431		MEAN 283	HAX 1230	MIN 78	AC-FT 205200						
WTR YR 1975 TOTAL	100111		MEAN 274	HAX 1180	MIN 88	AC-FT 198600						

BEAR RIVER BASIN

1090. Logan River above State dam, near Logan, Utah—continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF LOGAN RIVER ABOVE STATE DAM
AND LOGAN, HYDE PARK & SMITHFIELD CANAL AT HEAD, NEAR LOGAN, UTAH,
WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	162	129	195	112	106	110	147	831	956	412	262
2	187	152	129	111	110	106	113	163	884	958	398	261
3	187	152	129	111	110	107	111	210	916	978	387	256
4	187	150	130	113	109	107	112	278	957	997	377	256
5	184	148	130	112	110	107	112	244	976	1010	370	251
6	180	148	129	113	105	114	114	227	1040	994	360	249
7	180	146	129	113	110	118	116	215	1180	978	352	248
8	178	146	127	113	108	113	111	199	1180	953	345	246
9	178	146	120	113	111	114	114	267	1120	952	339	243
10	174	144	121	113	113	114	109	269	974	926	337	244
11	172	142	121	113	110	113	111	361	899	896	337	238
12	172	142	125	114	106	111	109	407	921	876	331	235
13	168	142	129	114	108	109	112	368	1010	827	334	235
14	167	142	123	114	107	109	118	473	1150	783	321	231
15	159	142	123	114	106	107	120	580	1230	750	321	231
16	166	142	125	116	106	107	125	678	1270	726	315	229
17	166	142	125	114	103	109	127	740	1190	693	307	226
18	172	146	120	114	101	105	127	801	1160	648	304	224
19	170	144	123	114	103	108	123	816	1010	621	300	221
20	165	138	123	113	106	116	121	758	910	604	296	220
21	163	140	127	113	99	122	127	624	856	580	296	218
22	155	140	123	106	90	122	139	528	851	557	288	215
23	153	140	114	111	98	117	165	482	886	544	290	209
24	154	138	110	118	100	115	169	461	925	522	282	207
25	151	138	118	127	104	112	181	528	976	501	279	207
26	151	136	118	121	104	103	181	511	925	481	279	207
27	151	136	111	113	103	106	179	528	896	465	276	205
28	153	134	114	113	104	110	167	569	910	458	274	202
29	155	132	116	105	---	103	154	582	922	451	269	201
30	166	129	106	103	---	113	147	656	938	440	269	199
31	168	---	110	110	---	113	---	753	---	426	264	---
TOTAL	5220	4279	3777	3495	2956	3436	3924	14363	29893	22563	9909	6876
MEAN	168	143	122	113	106	111	131	463	996	728	320	229
MAX	188	162	130	127	113	122	181	816	1270	1010	412	262
MIN	151	129	106	103	90	103	109	147	831	426	264	199
AC-FT	10350	8490	7490	6930	5860	6820	7780	28490	59290	44750	19650	13640
CAL YR 1974	TOTAL	115816	MEAN	317	MAX	1260	MIN	84	AC-FT	229700		
WTR YR 1975	TOTAL	110691	MEAN	303	MAX	1270	MIN	90	AC-FT	219600		

BEAR RIVER BASIN

1170. Hammond (East Side) Canal near Collinston, Utah

LOCATION.--Lat 41°49'51", long 112°03'24", in SE¼ sec.27, T.13 N., R.2 W., Box Elder County, on right bank 3,600 ft (1,097 m) downstream from Cutler Dam and 4 mi (6 km) north of Collinston.

PERIOD OF RECORD.--June 1912 to current year. Prior to 1915, published as Hammond Ditch near Collinston. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Prior to May 22, 1914, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--63 years, 51.2 ft³/s (1.450 m³/s) 37,090 acre-ft/yr (45.7 km³/yr).

EXTREMES.--Maximum daily discharge, 184 ft³/s (5.21 m³/s) June 29, 1963; no flow at times in each year.

REMARKS.--Records good. Canal diverts from east side of Bear River in NW¼SW¼ sec.26 T.13 N., R.2 W., at dam at which West Side Canal and intake of Cutler powerplant also divert. Water from this canal and West Side Canal used for irrigation of about 58,000 acres (235 km²) below station in eastern Box Elder County.

COOPERATION.--Gage-height record and 5 discharge measurements furnished by Utah Power & Light Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	7.7						0	89	140	154	140
2	89	7.7						0	92	149	154	145
3	84	7.7						0	90	152	154	145
4	77	2.0						0	83	152	145	140
5	73	0						0	89	153	140	134
6	64	0						0	96	157	137	132
7	53	0						0	96	163	138	131
8	52	0						0	89	167	142	131
9	50	0						0	91	164	143	128
10	49	0						0	108	165	145	119
11	49	0						0	122	170	145	109
12	48	0						0	122	170	147	108
13	48	0						.18	126	170	145	99
14	48	0						77	131	170	143	95
15	48	0						61	130	171	139	95
16	48	0						29	133	170	138	94
17	46	0						25	130	170	136	95
18	44	0						38	107	169	138	93
19	41	0						35	95	169	142	87
20	41	0						40	89	169	142	83
21	41	0						38	77	166	144	81
22	36	0						38	66	161	147	79
23	32	0						37	66	157	147	80
24	29	0						35	67	158	147	75
25	16	0						35	68	160	144	75
26	9.9	0						35	71	164	142	76
27	9.0	0						35	78	163	142	68
28	8.0	0						38	96	161	142	65
29	7.7	0						46	120	146	141	63
30	7.7	0						62	126	156	141	62
31	7.7	---						83	---	154	141	---
TOTAL	1345.0	25.9	0	0	0	0	0	787.18	2945	5006	4447	3027
MEAN	43.4	+.86	0	0	0	0	0	25.4	98.2	161	143	101
MAX	89	7.7	0	0	0	0	0	83	133	171	154	145
MIN	7.7	0	0	0	0	0	0	0	66	140	137	62
AC-FT	2670	51	0	0	0	0	0	1560	5840	9930	8820	6000
CAL YR 1974 TOTAL	22228.70		MEAN 60.9	MAX 167	MIN 0	AC-FT 44090						
WTR YR 1975 TOTAL	17583.08		MEAN 48.2	MAX 171	MIN 0	AC-FT 34880						

BEAR RIVER BASIN

1175. West Side Canal near Collinston, Utah

LOCATION.--Lat 41°49'55", long 112°03'36", in SW¼ sec.27, T.13 N., R.2 W., Box Elder County, on left bank 4,200 ft (1,280 m) downstream from Cutler Dam and 4 mi (6.4 km) north of Collinston.

PERIOD OF RECORD.--June 1912 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Prior to May 22, 1914, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--63 years, 243 ft³/s (6.882 m³/s) 176,100 acre-ft/yr (217 hm³/yr).

EXTREMES.--Period of record: Maximum daily discharge, 765 ft³/s (21.7 m³/s) July 19-24, 26-28, 1975; no flow for periods in every year except 1914.

REMARKS.--Records excellent. Canal diverts from west side of Bear River in NE¼SE¼ sec.27, T.13 N., R.2 W., at dam at which Hammond (East Side) Canal and intake of Cutler powerplant also divert. Water from this canal and Hammond (East Side) Canal used for irrigation of about 58,000 acres (235 km²) below station in eastern Box Elder County.

COOPERATION.--Gage-height record and 7 discharge measurements furnished by Utah Power & Light Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	509	108	84	70	34	30						
2	488	106	81	70	32	29		0	368	717	701	703
3	456	107	79	72	30	28		0	434	743	693	699
4	397	107	78	72	30	27		0	484	739	691	701
5	378	107	78	74	30	27		0	481	739	679	707
6									506	735	673	707
7	363	107	78	74	30	27		0	613	739	679	709
8	330	105	78	74	30	16		0	637	743	691	713
9	312	106	78	76	29	2.8		0	616	747	699	709
10	296	106	78	76	32	2.7		0	605	745	705	707
11	290	106	77	76	32	1.4		0	594	749	713	695
12												
13	278	105	76	76	30	0		0	639	747	711	669
14	255	105	76	78	28	0		0	673	745	707	649
15	242	105	72	78	28	0		1.4	673	749	707	637
16	233	104	68	74	28	0		252	673	747	709	620
17	224	104	68	70	28	0		220	675	749	709	601
18												
19	224	103	68	66	28	0		220	679	757	711	594
20	217	104	68	64	28	0		246	673	761	691	596
21	208	94	68	62	29	0		278	620	763	685	596
22	208	88	68	60	29	0		286	560	765	687	582
23	207	88	68	58	30	0		280	499	765	689	567
24												
25	204	87	68	56	30	0		184	484	765	699	550
26	196	84	68	54	30	0		193	470	765	709	539
27	187	84	68	52	30	0		191	495	765	707	531
28	175	84	68	50	30	0		193	524	765	707	524
29	160	84	68	48	30	0		193	544	763	707	509
30												
31	157	84	68	46	30	0		208	572	765	707	481
1	155	83	68	44	30	0		220	647	765	707	456
2	154	84	67	42	30	0		221	693	765	705	477
3	148	84	67	40	---	0		260	713	755	703	466
4	139	84	68	38	---	0		314	721	743	703	464
5	122	---	68	36	---	0	---	336	---	711	703	---
TOTAL	7912	2909	2235	1926	835	190.9	0	4296.4	17565	23271	21687	18158
MEAN	255	97.0	72.1	62.1	29.8	6.16	0	139	586	751	700	605
MAX	509	108	84	78	34	30	0	336	721	765	713	713
MIN	122	83	67	36	28	0	0	0	368	711	673	456
AC-FT	15690	5770	4430	3820	1660	379	0	8520	34840	46160	43020	36020
CAL YR 1974	TOTAL	116619.00	MEAN 320	MAX 759	MIN 0	AC-FT 231300						
WTR YR 1975	TOTAL	100985.30	MEAN 277	MAX 765	MIN 0	AC-FT 200300						

BEAR RIVER BASIN

1180. Bear River near Collinston, Utah

LOCATION.--Lat 41°50'03", long 112°03'16". in NW1/4 sec.27, T.13 N., R.2 W., Box Elder County, on right bank 800 ft (244 m) downstream from Cutler plant of Utah Power & Light Co., 2,000 ft (610 m) downstream from Cutler Dam, and 5.5 mi (8.8 km) north of Collinston.

DRAINAGE AREA.--6,267 mi² (16,232 km²).

PERIOD OF RECORD.--July 1889 to current year. Published as "at Collinston" prior to 1900. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 4,276.13 ft (1,303.364 m) above mean sea level (levels by Bureau of Reclamation). Prior to Nov. 8, 1913, nonrecording gage, and Nov. 8, 1913 to Sept. 10, 1938, water-stage recorder, at site 0.8 mi (1.3 km) downstream at different datums.

EXTREMES.--Current year: Maximum discharge, 6,720 ft³/s (190 m³/s) May 21 (gage height, 6.48 ft or 1.975 m); minimum daily, 25 ft³/s (0.71 m³/s) Oct. 27.
 Period of record: Maximum discharge observed, 11,600 ft³/s (329 m³/s) June 7-10, 1909 (gage height, 7.70 ft or 2.34 m, site and datum then in use); minimum daily, 10 ft³/s (0.28 m³/s) Aug. 4-12, 18-23, 1905; practically no flow at 2400 Aug. 5, 1920.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoir, power developments, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Eleven discharge measurements furnished by Utah Power & Light Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	1050	1020	1400	1520	713	2220	3010	3820	2740	967	1130
2	761	1080	1490	1310	1550	1570	1260	2480	3810	2560	990	1200
3	628	1110	1550	1350	2030	2060	2000	1550	3660	2770	422	387
4	964	1010	2100	800	1830	1270	2330	2960	3770	2060	1740	942
5	653	1680	1510	1550	1500	1670	1330	3110	3960	2160	1150	1480
6	855	1970	1640	1300	1720	2400	1810	3210	4190	1560	345	1480
7	965	1260	1700	1770	1540	2940	1590	3600	4190	1780	427	1480
8	1100	606	1470	2300	1370	2310	2350	3790	4030	1630	559	979
9	1310	796	1540	1670	1930	2740	1990	3510	3870	1250	1100	574
10	1130	463	1750	1370	1320	2200	1840	3360	3560	1180	753	930
11	1260	1340	1530	1710	1760	2190	1980	3200	3480	1270	1060	1310
12	878	1100	1320	1750	2440	2230	1440	3280	3090	1290	307	1220
13	1240	1240	1670	1500	1020	2350	1820	3330	2990	507	327	609
14	979	1340	1800	1530	1970	1660	1910	3300	2880	1270	570	1320
15	895	994	1610	1650	1970	1990	1950	3590	2830	1390	179	809
16	907	1020	1470	1570	1360	1910	1660	3880	2090	1450	619	824
17	826	114	1900	1690	711	1960	2020	3880	2980	1080	39	939
18	921	1630	1600	1840	1590	1680	2330	3870	2970	1110	1050	1040
19	1540	737	1810	1820	925	1470	2380	4600	2850	181	291	1110
20	931	553	1310	1760	1390	1830	2360	6090	3120	162	1200	1420
21	1200	1050	1910	1960	1010	1790	2690	6440	3580	1400	362	953
22	1840	1560	1850	2080	1500	1900	2170	6130	3770	746	601	1320
23	1280	1290	1480	1530	718	1830	2430	5460	3760	1110	493	1850
24	1850	1200	1520	1730	2160	1830	2610	4830	3570	625	662	1580
25	1830	1120	1170	1500	714	2460	2620	4820	3220	872	1730	1550
26	1350	1670	1020	2050	955	2930	2970	4410	3130	669	1130	1910
27	25	1200	1500	2150	1310	3600	2960	4270	2990	671	334	1880
28	1100	1220	1510	2100	1460	3010	2890	4090	2970	198	617	26
29	487	1150	1310	1930	---	3010	3160	3870	2890	577	663	1130
30	1440	1910	1380	1620	---	2780	3030	3840	2810	440	1240	706
31	1080	---	1510	1590	---	1490	---	3830	---	861	694	---
TOTAL	32397	34463	47950	51880	41273	65043	65980	121530	100830	37609	22621	34088
MEAN	1045	1149	1547	1674	1474	2098	2197	3920	3361	1213	730	1136
MAX	1850	1970	2100	2300	2440	3010	3160	6440	4190	2770	1740	1910
MIN	25	114	1020	800	711	713	1266	1556	2096	162	39	26
AC-FT	64266	68360	95110	102900	81860	129000	130700	241100	200000	74600	44870	67610
CAL YR 1974	TOTAL	670255	MEAN	1836	HAX	3880	MIN	25	AC-FT	1329000		
WTR YR 1975	TOTAL	655584	MEAN	1796	HAX	6440	MIN	25	AC-FT	1300000		

BEAR RIVER BASIN

1260. Bear River near Corinne, Utah

LOCATION.--Lat 41°34'35", long 112°06'00", in SE1/4 sec. 30, T.10 N., R.2 W., Box Elder County, on right bank 1.2 mi (1.9 km) downstream from Salt Creek, 2.0 mi (3.2 km) northeast of Corinne, and 2.8 mi (4.5 km) downstream from Malad River.

DRAINAGE AREA.--7,029 mi² (18,205 km²).

PERIOD OF RECORD.--October 1949 to September 1957, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,204.6 ft (1,281.56 km) unadjusted. Auxiliary nonrecording gage 7,800 ft (2,380 m) downstream July 27, 1950 to Nov. 21, 1955.

AVERAGE DISCHARGE.--20 years, 1,783 ft³/s (50.5 m³/s) 1,292,000 acre-ft/yr (1.59 km³/yr).

EXTREMES.--Current year: Maximum discharge, 6,660 ft³/s (189 m³/s) May 22, (gage height, 14.01 ft or 4.270 m); minimum daily, 312 ft³/s (8.84 m³/s) Aug. 18.
 Period of record: Maximum discharge, 7,370 ft³/s (209 m³/s) June 17, 1971 (gage height, 15.12 ft or 4.609 m); minimum daily, 72 ft³/s (2.04 m³/s) Aug. 20, 21, 26, Sept. 8, 1964, July 5, 1970.

REMARKS.--Records good except those for winter months, which are fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas. Records of chemical analyses for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	955	1490	1980	1600	1800	1690	2270	3280	4010	2850	1000	838
2	487	1280	1390	1550	1700	1470	2280	3070	4000	2700	1100	1180
3	752	1360	1640	1450	1700	1650	1800	2560	3990	2720	1200	1290
4	878	1400	1640	1350	2100	2220	2310	2310	3900	2610	1000	550
5	1080	1370	1980	1200	2000	1800	2410	3030	3910	2360	1800	1110
6	871	1880	1700	1700	1900	2240	1890	3210	4090	2840	1400	1520
7	955	2150	1820	1500	1850	3070	2140	3410	4280	1970	545	1560
8	1140	1610	1830	1900	1800	3210	1940	3710	4300	1710	500	1590
9	1350	797	1670	2200	1800	3020	2510	3840	4100	1800	700	1120
10	1550	900	1710	1700	2000	2900	2240	3640	3920	1600	1200	830
11	1420	629	1970	1550	1700	2750	1970	3530	3690	1400	1000	1240
12	1440	1370	1800	1750	2000	2720	2100	3410	3530	1300	1100	1530
13	1190	1300	1600	1900	2300	2790	1750	3510	3240	1400	500	1360
14	1410	1350	1750	1700	1600	2820	2000	3580	3070	800	410	914
15	1280	1480	1900	1750	2000	2150	2280	3630	3000	1400	698	1500
16	1180	1180	1700	1750	2100	2340	2140	3820	2580	1500	549	1180
17	1040	1130	1650	1750	2000	2340	2020	4000	2650	1600	573	1080
18	1120	383	1950	1800	1100	2300	2300	4090	3090	1300	312	1160
19	1140	1430	1850	2000	1400	2080	2510	4210	3170	1200	992	1270
20	1500	1010	1900	1900	1300	1830	2590	5020	3180	700	808	1310
21	1340	926	1900	1900	1500	2070	2730	6120	3440	500	1060	1650
22	1480	1330	2000	2050	1300	2100	2600	6560	3860	1500	540	1330
23	1880	1490	1900	2150	1550	2230	2450	6580	3970	1000	822	1570
24	1680	1530	1750	1900	1200	2150	2730	6080	3970	1200	687	2070
25	2330	1510	1600	1900	1900	2440	2800	5390	3740	900	814	1850
26	1990	1440	1500	1850	1100	3140	3000	5000	3430	1000	1640	1810
27	1520	1810	1400	2100	1200	3360	3180	4800	3260	800	1340	2420
28	479	1590	1200	2300	1480	3400	3210	4600	3110	800	619	1760
29	1050	1530	1500	2200	---	3410	3220	4300	3060	600	623	516
30	864	1540	1700	2100	---	3350	3350	4050	2970	700	857	1190
31	1560	---	1550	2000	---	3020	---	4030	---	600	1110	---
TOTAL	38911	40195	53430	56450	47380	78060	72720	128390	106510	44550	27500	40298
MEAN	1255	1340	1724	1821	1692	2518	2424	4142	3550	1437	887	1343
MAX	2330	2150	2000	2300	2300	3410	3350	6580	4300	2850	1800	2420
MIN	479	383	1200	1200	1100	1470	1750	2310	2580	500	312	516
AC-FT	77180	79730	106000	112000	93980	154800	144200	254700	211300	88380	54550	79930
CAL YR 1974 TOTAL	729898			2000	MAX	4330	MIN	195	AC-FT	1448000		
WTR YR 1975 TOTAL	734404			2012	MAX	6580	MIN	312	AC-FT	1457000		